

Prva internacionalna konferencija
Psihologija i muzika – interdisciplinarna susretanja
First International Conference
Psychology and Music – Interdisciplinary Encounters

Pretkonferencijski program 21–23. oktobar, 2019.

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Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu

Ko-organizatori

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Sekcija za psihologiju muzike, Društvo psihologa Srbije

Main Organizer

Faculty of Music, University of Arts in Belgrade

Co-organizers

Institute of Psychology, Faculty of Philosophy, University of Belgrade
Psychology of Music Section, Serbian Psychological Society

Knjiga rezimea Prve internacionalne konferencije
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PRVA MEĐUNARODNA KONFERENCIJA

**Psihologija i muzika –
interdisciplinarna susretanja**

FIRST INTERNATIONAL CONFERENCE

**Psychology and Music –
Interdisciplinary Encounters**

KNJIGA REZIMEA
ABSTRACT BOOKLET

Urednice izdanja
Blanka Bogunović i Sanela Nikolić

Editors
Blanka Bogunović and Sanela Nikolić

Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu
Beograd 2019

Faculty of Music, University of Arts in Belgrade
Belgrade 2019

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Reč urednika

Snažno interesovanje za istraživanje i primenu naučnog znanja u oblasti psihologije muzike u Srbiji razvija se od osamdesetih godina 20. veka. Ovo interesovanje je našlo svoje mesto, najpre, na Odeljenju za psihologiju i Institutu za psihologiju Filozofskog fakulteta, Univerziteta u Beogradu. Nastavljeno je, zatim, osnivanjem Sekcije za psihologiju muzike u okviru Društva psihologa Srbije 1996. godine. Razvoj je posebno intenziviran nakon 2006. godine na Fakultetu muzičke umetnosti, Univerziteta umetnosti u Beogradu. Rad relativno malog broja kolega uključivao je realizaciju istraživačkih projekata, objavljivanje knjiga i članaka i razvoj snažne mreže psihološke službe u specijalizovanim muzičkim školama u Srbiji. Tako, prva internacionalna konferencija *Psihologija i muzika – interdisciplinarna susretanja* predstavlja sledeći korak u razvoju psihologije muzike u našoj sredini. Ova konferencija je inicirana idejom o regionalnom razvoju koju su ohrabрили i podržali Evropsko društvo za kognitivne nauke o muzici (ESCOM) i Društvo za istraživanje u obrazovanju, muzici i psihologiji (SEMPRE) iz Velike Britanije.

Konferencija ima za cilj da okupi različita istraživačka nastojanja pojedinaca i institucija u interdisciplinarnom polju psihologije i muzike, te da deluje kao prostor u kome bi istraživači iz Srbije, regiona zapadnog Balkana, drugih evropskih zemalja i zemalja sveta, predstavili svoj rad jedni drugima, ali i široj zainteresovanoj publici.

Ciljevi konferencije su:

- podsticanje interdisciplinarnog empirijskog i teorijskog istraživanja i razmene znanja iz oblasti psihologije, muzike i srodnih naučnih i humanističkih disciplina;
- ohrabivanje praktične primene akademskog znanja, prvenstveno u oblastima muzičkog obrazovanja darovitih, vokalno-instrumentalnog izvođenja i zdravlja muzičara, kao i delovanja muzike u svakodnevnom životu ljudi;
- obezbeđivanje mogućnosti za međunarodne susrete i jačanje mreže i saradnje među istraživačima koji potiču iz različitih geografskih područja;
- okupljanje iskusnih naučnika i mladih istraživača, psihologa, muzičara različitih profila i predstavnika srodnih naučnih i primenjenih disciplina.

prof. dr Blanka Bogunović
Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu
Predsednik Programskog i Organizacionog odbora
ESCOM predstavnik za Srbiju

Editor's Note

A keen interest in research and the application of scholarly knowledge in the field of psychology of music has blossomed in Serbia from the 1980s onwards. It started at the Department of Psychology and Institute for Psychology, Faculty of Philosophy, University of Belgrade and evolved through the founding of the Psychology of Music Section within the Serbian Psychological Society in 1996. Psychology of music reached its full development after 2006 at the Faculty of Music, University of Arts in Belgrade. The work of a comparatively small number of colleagues had resulted in published books and articles, research projects, as well as in the development of a strong network of psychological services in specialist music schools in Serbia. Hence, the first international conference *Psychology and Music – Interdisciplinary Encounters* comes as the next step in the further development of the psychology of music in Serbia and region. It is encouraged and supported by the European Society for the Cognitive Sciences of Music (ESCOM) and the Society for Education, Music and Psychology Research (SEMPRE) from Great Britain.

The conference aims to bring together the diverse research endeavors of individuals and institutions in the interdisciplinary field of psychology and music, who work in Serbia, Western Balkan region and European countries, in order to provide a setting in which they can make their work visible to each other and to a wider interested audience.

The tasks of the conference are:

- to foster interdisciplinary empirical and theoretical research and knowledge exchange in the field of psychology and music and related scientific and humanistic disciplines;
- to encourage the practical applications of academic knowledge, primarily in the field of music education for gifted, vocal-instrumental performance and musicians' health, and functions of music in everyday life;
- to create possibilities for international encounters and strengthen networks and collaborations between researchers in different geographic areas;
- to bring together experienced scholars and early-career researchers, psychologists, musicians with different profiles and representatives of related scientific and applied disciplines.

Prof. Blanka Bogunović, PhD
Faculty of Music, University of Arts in Belgrade
President of the Program and Organizing Committee
ESCOM representative for Serbia

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Nagrade

ESCOM nagrada za istraživača na početku karijere

ESCOM nagrada za istraživača na početku karijere dodeljuje se studentu doktorskih ili master studija za visoko vrednovan tekst saopštenja predat za Zbornik konferencije iz oblasti percepcije i kognicije. ESCOM čestita sledećim studentima na odličnim tekstovima saopštenja:

1. **Juhana N. Vilson**, Departman za muziku, umetnost i studije kulture, Univerzitet Jiveskile, Finska – ESCOM nagrada za istraživača na početku karijere
2. **Đorđe Stepanović**, Odsek za muzičku teoriju, Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu, Srbija – Pohvala

SEMPRE nagrada za učešće na konferenciji

Društvo za istraživanja u obrazovanju, muzici i psihologiji (SEMPRE) iz Velike Britanije podržava PAM – IE Belgrade 2019 konferenciju kao „događaj u saradnji sa SEMPRE”, pružajući mogućnost mladim učesnicima da prisustvuju konferenciji kako bi pomogla njihove istraživačke napore. Na ovaj način, SEMPRE obezbeđuje podršku velikim i malim konferencijama koje organizuju druga udruženja i istraživačke zajednice. SEMPRE je podržalo učešće na konferenciji sledećih aktivnih učesnika:

1. **Friderike Keler**, Institut za medicinsku psihologiju Centra za psihosocijalnu medicinu, Univerzitetska bolnica u Hajdelbergu, Nemačka
2. **Kaja Korošec**, Odsek za psihologiju, Univerzitet u Ljubljani, Slovenija
3. **Maruša Mavrič**, Pedagoški fakultet, Univerzitet u Mariboru, Slovenija
4. **Zimona Maurer**, Fakultet lepih umetnosti i muzike, Univerzitet u Melburnu, Australija; Laban/Bartenijef institut za studije pokreta, Njujork, SAD
5. **Stanislav Skorik**, Institut za psihologiju, Ruska akademija nauka, Ruska federacija

Awards

ESCOM Early Career Researcher Award

ESCOM Early Career Researcher Award is given to PhD or Master student for a high-quality proceedings paper in the field of music perception and cognition. ESCOM congratulates the following research students on excellent proceedings papers:

1. **Johanna N. Wilson**, Department of Music, Arts and Culture Studies, University of Jyväskylä, Finland – ESCOM Early Career Researcher Award
2. **Đorđe Stepanović**, Department of Music Theory, Faculty of Music, University of Arts in Belgrade, Serbia – Honorary mention

SEMPRE Travel Award

The Society for Education, Music, and Psychology Research (SEMPRE) in Great Britain supports the PAM – IE Belgrade 2019 Conference as an “Event in association with SEMPRE” by offering awards to support delegates attending the conference in order to assist them in their research endeavor. In this way, SEMPRE provides support to major and smaller conferences run by other societies and research communities. SEMPRE awarded the following active student participants:

1. **Friederike Köhler**, Institute of Medical Psychology at the Center for Psychosocial Medicine, University Hospital Heidelberg, Germany
2. **Kaja Korošec**, Department of Psychology, University of Ljubljana, Slovenia
3. **Maruša Mavrič**, Faculty of Education, University of Maribor, Slovenia
4. **Simone Maurer**, Faculty of Fine Arts and Music, University of Melbourne, Australia, Laban/Bartenieff Institute of Movement Studies, United States of America
5. **Stanislav Skorik**, Institute of Psychology, Russian Academy of Sciences, Russian Federation

Rezimei

**PRETKONFERENCIJSKA PREDAVANJA
I RADIONICE**

Abstracts

PRE-CONFERENCE LECTURES AND WORKSHOPS

Predavanje: Nedostajuće osnove muzičke teorije

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Rezime

Kako zapadna muzika funkcioniše? Ovo sveobuhvatno pitanje uključuje bezbroj potpitanja. Kako je moguće objasniti melodijsku, ritmičku i harmonsku strukturu muzike u durskim i molskim tonalitetima? Odakle izvorno potiču ti poznati obrasci i zašto nam se i dalje toliko sviđaju, nakon toliko vekova? Da li su ovi obrasci i naše reakcije na njih proizvoljne, ili one zavise od opštih karakteristika opažanja? Kako su melodije strukturisane i zašto? Zašto klavir ima 12 dirki po oktavi, i zašto volimo muziku koja se izvodi u ovakvoj hromatskoj skali? Zašto volimo muziku koja je (sudeći po fizičkim merenjima) izuzetno netemperovana? Zašto je većina muzike koju čujemo danas još uvek napisana u durskim i molskim tonalitetima? Zašto postoji toliko dela, od Baha do 12-otaktnog bluza, koja su bazirana na istom ograničenom rečniku akordskih progresija? Kako nam ne dosade?

U ranom 18. veku, Žan-Filip Ramo otkrio je vezu između osnove akorda, tonike pasaža i alikvotnog niza. Ali Ramoova teorija je problematična i kontroverzna u više pogleda. Šta sa molskim kvintakordom? Različitim metodama štimovanja? Atonalnom muzikom? Ne-zapadnom muzikom? Biće predstavljena korigovana verzija Ramoove teorije, koja je zasnovana na psihologiji opažanja visine u jeziku i kategorizujućoj prirodi opažanja visine i intervala. Ona se bavi opažanjem (nedostajućih) temelja i značajna je za razumevanje melodije, harmonije, tonaliteta, konsonanci, vođenja glasova i progresije akorada.

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- Parncutt, R., Sattmann, S., Gaich, A., & Seither-Preisler, A. (2019). Tone profiles of isolated musical chords: Psychoacoustic versus cognitive models. *Music Perception*, 36 (4), 406–430.
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Lecture: Missing fundamentals of music theory

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Abstract

How does western music work? This overarching question involves countless subquestions. How can the melodic, rhythmic, and harmonic structure of music in major and minor keys be explained? Where do those familiar patterns come from originally, and why do we still like them so much, after so many centuries? Are these patterns, and our responses to them, arbitrary or do they depend on perceptual universals? How are melodies structured, and why? Why does the piano have 12 keys per octave, and why do we love music performed in this chromatic scale? Why do we like music that (according to physical measurements) is way out of tune? Why is most music that we hear today still written in major and minor keys? Why are so many pieces of music, from Bach to 12-bar blues, based on the same limited vocabulary of chord progressions? Why don't we get tired of them?

In the early 18th century, Jean-Philippe Rameau discovered a connection between the root of a chord, the tonic of a passage, and the harmonic series. But Rameau's theory is problematic and controversial in several respects. What about the minor triad? different tuning systems? atonal music? non-western music? A revised version of Rameau's theory will be introduced that is based on the psychology of pitch perception in language and the categorical nature of pitch and interval perception. It addresses the perception of (missing) fundamentals and is relevant for understanding melody, harmony, tonality, consonance, voice leading, and chord progression.

References

- Parncutt, R., Sattmann, S., Gaich, A., & Seither-Preisler, A. (2019). Tone profiles of isolated musical chords: Psychoacoustic versus cognitive models. *Music Perception*, 36 (4), 406-430.
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Radionica: Istraživanje interakcije u ansamblu tokom vežbanja i izvođenja

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Rezime

Nije neuobičajeno okarakterisati vežbanje i izvođenje u malim ansamblima kao primer kompleksnog dinamičkog sistema, gde je stanje sistema determinisano interakcijom među izvođačima, pre nego kauzalnim setom definišućih osobina. Zadovoljstvo izvođenja u ansamblu često je povezano sa osećajem pripadanja nečemu većem, sa doživljajem sposobnosti da se značajno doprinese celini, kao i sa interakcijom i pojavama koje se dešavaju u realnom vremenu. Smislen način da se istraži ovakva grupna dinamika jeste pokušaj da se okarakteriše interakcija među izvođačima. Tokom predavanja upoređićemo rezultate različitih tipova istraživanja: poređenje izmerenih odnosa vođstvo-praćenje sa samoprocenom istih odnosa; količine verbalnog doprinosa na probama obrascima verbalne interakcije; poređenje obrazaca verbalne interakcije sa opserviranom muzičkom interakcijom među izvođačima. Metodologija i neki od rezultata istraživanja biće prezentovani.

Workshop: Investigating interaction in ensemble rehearsal and performance

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Abstract

It is not uncommon to characterize rehearsing and performing in small ensemble settings as examples of complex dynamic systems, where the state of the system is determined by the interactions between actors rather than a causal set of defining features. Indeed, the joy of ensemble playing is often related to feelings of being part of something larger, being able to valuably contribute to this whole, and of real-time interaction and emergence. A meaningful way to investigate such group dynamics is to try to characterize the interaction between players. In this seminar, we will compare the outcomes of different types of investigations: comparing measured relationships of leading-following compared to self-reported relationships; the amount of verbal contribution in rehearsals to verbal interaction patterns; and verbal interaction patterns to observed musical interaction between players. Methodologies and some exploratory results will be presented.

Predavanje: Sistemska *versus* interdisciplinarna muzikologija

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Rezime

Sistemska muzikologija je razučena kolekcija muzikoloških podgrana čiji je predmet primarno muzika u opštem smislu. Kako muzika funkcioniše u materijalnom svetu? Šta su muzičke emocije, ako se izuzme kulturološki kontekst? Šta je socijalna funkcija muzike? Zašto posvećujemo toliko vremena i energije muzici?

Sistematska muzikologija spaja relevantne nauke (empirijsku psihologiju i sociologiju, akustiku, fiziologiju, neuronauke, kognitivne nauke, informatiku, tehnologiju) i humanistiku (filozofska estetika, sociološka teorija, semiotika, hermeneutika, muzička kritika, kulturološke i rodne studije). Ovde, reč 'nauka' uopšteno označava pozitivističko istraživanje zasnovano na metodama i epistemologiji fizike, hemije i biologije.

Termin 'interdisciplinarna muzikologija' je mnogo širi nego sistemska muzikologija. On uključuje sva istraživanja i razmišljanja o muzici i, stoga, teži balansu između 'sistemskih' disciplina i onih koji se primarno bave specifičnim ispoljavanjima muzike (istorijska muzikologija, etnomuzikologija); reč 'muzikologija' odnosi se na sva istraživanja o svim vrstama muzike.

Ove definicije postavljaju centralna pitanja o ciljevima, sadržaju i kvalitetu muzikoloških istraživanja. Šta je to što želimo da razumemo o muzici i zašto? Kako možemo najbolje promovirati i proceniti kvalitet i kreativnost? Uopšteno, naučnici nisu kadri da procenjuju istraživanja u humanistici i obrnuto. Skoro je nemoguće biti internacionalno priznat ekspert u humanističkim disciplinama i prirodnim naukama. Stoga je neophodna konstruktivna saradnja. Potreban nam je bolji balans između specijalizacije i interdisciplinarnosti u muzikologiji.

Budućim muzikolozima biće potrebno nekoliko stvari. Prvo, osnove u specifično muzičkim disciplinama poput muzičke teorije (ne nužno Zapadne) i muzičkog izvođaštva. Drugo, solidna baza u ne-muzičkoj 'srodnoj naučnoj oblasti' poput istorije ili psihologije. Treće, temeljno poznavanje više od jedne muzikološke poddiscipline, npr. etnomuzikologije i informatičke muzikologije.

Predavanje će se završiti sa predstavljanjem ciklusa „Konferencija o interdisciplinarnoj muzikologiji”. Svaka konferencija obrađuje određenu temu i svaki doprinos, u svom pristupu, teži da ostvari balans između relevantnih humanističkih i prirodnih nauka.

References

- Clarke, E., & Cook, N. (Eds.). (2004). *Empirical Musicology: Aims, methods, prospects*. Oxford: Oxford University Press.
- Honing, H. (2006). On the growing role of observation, formalization and experimental method in musicology. *Empirical Musicology Review*, 1 (1), 2-6.
- Parncutt, R. (2007). Systematic musicology and the history and future of western musical scholarship. *Journal of Interdisciplinary Music Studies*, 1 (1), 1-32.

Lecture: Systematic *versus* interdisciplinary musicology

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Abstract

Systematic musicology is a loose collection of musicological subdisciplines that are primarily concerned with music in general. How does music work in the physical world? What is a musical emotion, regardless of the cultural context? What are the social functions of music? Why do we devote so much time and energy to music?

Systematic musicology brings together relevant sciences (empirical psychology and sociology, acoustics, physiology, neurosciences, cognitive sciences, computing, technology) and humanities (philosophical aesthetics, theoretical sociology, semiotics, hermeneutics, music criticism, cultural and gender studies). Here, the word ‘science’ is used in the mainstream English sense of positivistic research founded on the methods and epistemologies of physics, chemistry, and biology.

The term ‘interdisciplinary musicology’ is broader than systematic musicology. It includes all research and thinking about music, and therefore strives for a balance between ‘systematic’ disciplines and those that are primarily concerned with specific manifestations of music (historical musicology, ethnomusicology); the word ‘musicology’ refers here to all research about all music.

These definitions raise central questions about the aims, content and quality of musicological research. What is it about music that we want to understand, and why? How might quality and creativity best be promoted and evaluated? In general, scientists are not in a position to evaluate research in the humanities and vice-versa. It is quasi-impossible to become an internationally recognized expert in both humanities and sciences. Therefore, constructive collaboration is necessary. We need a better balance between specialization and interdisciplinarity in musicology.

Future musicologists will need several things. First, foundations in music-specific disciplines such as music theory (not necessarily Western) and music performance. Second, a solid grounding in a non-musical ‘parent discipline’ such as history or psychology. Third, detailed acquaintance with more than one musicological subdiscipline, e.g. ethnomusicology and computational musicology.

The talk will conclude with an introduction to the series “Conference on Interdisciplinary Musicology”. Each conference focuses on a specific theme, and each contribution aims for a balance between relevant approaches from humanities and sciences.

References

- Clarke, E., & Cook, N. (Eds.). (2004). *Empirical Musicology: Aims, methods, prospects*. Oxford: Oxford University Press.
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Radionica: Objavljivanje članka u časopisu

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Rezime

Cilj ove interaktivne radionice je da ohrabri kolege, a naročito njihove studente da objavljuju svoja istraživanja u recenziranim časopisima kako bi bila dostupna najširoj publici. U savetima ću da se oslonim na svoja iskustva glavnog urednika recenziranog online časopisa *Istraživanja muzičkog izvođenja* (*Music Performance Research*, 2010–2019), na skorašnje iskustvo glavnog urednika časopisa *Musicae Scientia*, na članstvo u različitim uredničkim rukovodstvima, kao i na ulogu recenzenta brojnih članaka. Pružiću kratak pregled procesa planiranja, strukturiranja, pisanja, prezentovanja i predavanja članka za publikaciju, sa osvrtom na to šta recenzenti, urednici i, na kraju, drugi čitaoci traže. Objasniću šta se dešava nakon predaje rada i – kada je članak prihvaćen – kako autor može da pomogne da se informacija o objavljenom članku proširi, ne samo u akademskom krugu kolega, već i među praktičarima. Nadam se da će kolege biti spremne da podelu svoja lična iskustva pisanja, recenziranja i uređivanja, kao i da ćemo biti u mogućnosti da zajedno postavimo mnoga pitanja i odgovorimo na njih!

Workshop: Publishing a journal article

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Abstract

The aim of this interactive workshop is to encourage colleagues and particularly their students to publish their research in peer-reviewed journals so as to reach the widest audience. As a facilitator, I will draw on my experience as the Managing Editor of the online peer-reviewed journal *Music Performance Research* (2010–2019) and recently-appointed Editor-in-Chief of *Musicae Scientiae*, member of a variety of editorial boards and reviewer of countless journal articles. I will outline the process of planning, structuring, writing, presenting and submitting an article for publication, with a view to what reviewers, editors and (ultimately, other) readers are looking for. I will describe what happens following submission, and – when the article has been accepted – how the author can help disseminate it widely not only to fellow academics but also to practitioners. I hope colleagues will be prepared to share their own experiences of writing, reviewing and editing, and that together we will be able to ask and answer plenty of questions!

Radionica: Psihološki pristup muzičkoj ekspresivnosti: analiza, signali, akcenti

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Rezime

Muzička interpretacija uključuje vreme/trajanje, dinamiku i boju. Ovi elementi zavise, između ostalih stvari, i od muzičke strukture. Akcenti nisu samo note/dešavanja koja se sviraju glasnije; oni su takođe note/dešavanja koja se opažaju kao važna iz bilo kog razloga. Melodijski, harmonski, metrički i akcenti grupisanja sastavni su deo muzičke strukture, dok agogiku, dinamiku i tembrovske akcente dodaje izvođač.

Psihološke osnove muzičke interpretacije uključuju komunikaciju osnovnih emocija spram akustičnih signala u muzici i jeziku (Juslin & Lauka, 2003, str. 802, tabela 11). Moguće i obećavajuće je svesno primeniti ove ideje na muzičko izvođenje.

Studenti treba da ponesu jednu stranicu muzičkog zapisa na papiru veličine A4, odabranu iz muzike koju oni trenutno sami sviraju na bilo kojem instrumentu (ili pevaju). Analiziraćemo akcente koji su podrazumevani u ovim muzičkim strukturama i razmislićemo kako naša analiza može da inspiriše drugačije izvođačke interpretacije.

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- Juslin, P. N., & Lauka, P. (2003). Communication of emotions in vocal expression and music performance: Different channels, same code? *Psychological Bulletin*, 129 (5), 770.
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Workshop: A psychological approach to the musical expression: Analysis, cues, accents

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Abstract

Musical interpretation involves timing, dynamics, and timbre. These elements depend among other things on musical structure. Accents are not only notes/events that are played louder; they are also notes/events that are perceived to be salient for any reason. Melodic, harmonic, metrical, and grouping accents are implied by the musical structure, whereas agogic, dynamic, and timbral accents are added by the performer.

The psychological foundations of musical interpretation include the communication of basic emotions by acoustic cues in music and language (Juslin & Laukka, 2003, p. 802, Table 11). It is possible and promising to apply these ideas consciously to music performance.

Students should bring one page of music notation on a piece of A4 paper, selected from music that they are currently playing themselves on any instrument (or singing). We will analyze the accents that are implied by these musical structures and consider how our analysis might inspire different performance interpretations.

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- Juslin, P. N., & Laukka, P. (2003). Communication of emotions in vocal expression and music performance: Different channels, same code? *Psychological Bulletin*, 129 (5), 770.
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Rezimei
KONFERENCIJSKI PROGRAM

Abstracts
CONFERENCE PROGRAM



PLENARNA PREDAVANJA

KEYNOTES

Savremena publika klasične muzike: šta nam istraživanja mogu reći o njima i njihovim motivima i kako se profesionalni muzičari mogu bolje povezati sa njima

Džon Sloboda

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Rezime

U istraživanjima publike koncerata klasične muzike uočeno je dugotrajno opadanje posećenosti koncerata. Kako se nastupi uživo nalaze u srži prakse klasične muzike, ovo opadanje predstavlja izazov za profesiju.

Ovom prilikom biće pružen pregled niza projekata u koje su uključeni umetnici. Ovi projekti su u Gilhold školi u Londonu preduzeti u okviru istraživačke inicijative 'publika puna razumevanja', sa ciljem da se produbi veza između klasičnih muzičara i njihove publike, koja često može biti prilično hladna i površna. Projekti su podrazumevali da publika i muzičar intenzivnije komuniciraju pre, tokom i nakon koncerta, a procenjivano kakav to uticaj ima kako na muzičare tako i na publiku. Mogućnosti intenziviranja komunikacije pre koncerta uključuju posmatranje proba i učestvovanje u diskusijama između umetnika dok one tokom koncerta obuhvataju improvizovane interakcije i prilike da publika učestvuje. Intenziviranje komunikacije nakon koncerta podrazumeva mogućnosti za davanje povratnih informacija i razgovor između umetnika i publike.

Podaci ukazuju da upravo one intervencije koje su prepoznate kao estetski značajne omogućavaju dublje i aktivnije bavljenje muzičkim sadržajem i muzičkim procesom, razumevanje autentičnosti i ljudske strane muzičara, uz isticanje muzičkih nastupa kao procesa kontinuiranog otkrivanja, a ne predstavljanja nedokučivog i 'savršenog' gotovog proizvoda. Razmotrene su implikacije svega pomenutog na istraživanje i bavljenje muzikom.

Profesor **Džon Sloboda** je član Britanske akademije i nosilac titule Oficir Reda Britanske Imperije, najprestižnijeg britanskog priznanja za doprinose nauci. Profesor je i glavni istraživač na Gilhold školi, gde je od 2009. godine rukovodio istraživačkim programom Razumevanje publike. Takođe je profesor emeritus na Univerzitetu Kil. Bio je član Odeljenja za psihologiju na istom univerzitetu od 1974. do 2008. godine, gde je bio direktor Odseka za istraživanje muzičke veštine i razvoja, osnovanog 1991. godine. Rad Džona Slobode u oblasti psihologije muzike međunarodno je poznat i priznat. On je zaslužni član Britanskog psihološkog društva. Bio je predsednik Sekcije za psihologiju i Opšte sekcije Britanske asocijacije za unapređenje nauke, kao i predsednik Evropskog društva za kognitivne nauke o muzici (ESCOM), gde je bio i član uredničkog odbora časopisa *Musicae Scientiae*. Član je Društva za istraživanja u obrazovanju i psihologiji muzike (SEMPRE), a bio je i glavni urednik časopisa *Psihologija muzike* od 1985. do 1989. Trenutno je predsedavajući ESCOM-ovog Fonda Iren Deliež za prevodilačke aktivnosti čiji je cilj da se ključne evropske monografije 20. veka iz domena nauka o muzici i sistemske muzikologije prevedu na engleski jezik i objave. Nedavno je postao predsednik međunarodne istraživačke platforme Društveni uticaj stvaranja muzike (www.simm-platform.eu), čiji je i osnivač, a koja ima za cilj da podstiče i podrži istraživanje uslova u kojima muzička aktivnost može da utiče na društvenu dobrobit. Takođe je aktivista koji radi na boljem razumevanju civilnih žrtava oružanih nasilja i ko-rukovodilac i osnivač nevladinih organizacija *Iraq Body Count* i *Every Casualty Worldwide*. Učestvovao je u naporima da se dokumentuje šteta načinjena životima civila od strane NATO tokom bombardovanja Srbije 1999. godine. Tesno saraduje sa brojnim aktivistima i nevladinim organizacijama u regionu Balkana.

Contemporary audiences for classical music: What research can tell us about them and their motivations, and how professional musicians can better connect to them

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Abstract

A major context for audience research and development in classical music is an observed long-term decline in public attendance at classical music concerts. Since live performance is at the heart of classical performance training and practice, this decline presents challenges for the profession.

This presentation will review a range of artist-involved projects undertaken within an ‘understanding audiences’ research initiative at the Guildhall School London, aimed at deepening the connection between classical musicians and their live audiences, which can often be quite distant and uninvolved. The projects have involved augmenting audience-musician communication before, during, and after a concert, and evaluating the impact on both musicians and audience. Enhancements before a concert include observing a rehearsal and participating in discussions between artists. Enhancements during a concert include improvisatory interactions and opportunities for audience participation. Enhancements after a concert include feedback mechanisms and artist-audience dialogue.

Data indicate that interventions identified as aesthetically meaningful are those which allow deeper and more active engagement with the musical content and process, understanding of the authenticity and humanity of the musicians, alongside a highlighting of live musical performance as a process of continual discovery rather than the presentation of an inscrutable and ‘perfect’ end product. Implications for research and musical practice are discussed.

Professor **John Sloboda**, OBE FBA, is Research Professor at the Guildhall School, where he has directed its Understanding Audiences research programme since 2009. He is also Emeritus Professor at Keele and was a staff member of the School of Psychology at Keele from 1974–2008, where he was Director of its Unit for the Study of Musical Skill and Development, founded in 1991. John is internationally known for his work on the psychology of music. He is a Fellow of the British Psychological Society and has been President of both the Psychology and General Sections of the British Association for the Advancement of Science, as well as President of the European Society for the Cognitive Sciences of Music, where he has served on the editorial board of its journal *Musicae Scientiae*. He is a member of the Society for Education and Music Psychology Research and was Editor-in-Chief of its journal *Psychology of Music* from 1985–1989. He currently serves as chair of the ESCOM Irene Deliege Translation Fund, whose aim is to commission translations into English and publication of seminal European monographs in music science and systematic musicology from the 20th century. Recently he became founding President of the international Social Impact of Music Making Platform (www.simm-platform.eu) which aims to stimulate and support research into the conditions under which organized musical activity can affect social welfare. He is also an activist working to better understand the civilian cost of armed violence and is the founding co-director of the NGOs Iraq Body Count and Every Casualty Worldwide. He has participated in efforts to document the damage to civilian life done by NATO in their bombardment of Serbia in 1999 and has close links with a number of activists and NGOs in the Balkan region.

Pamćenje muzike: istraživanje i praksa za izvođače

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Rezime

Pamćenje pruža osnovu za uživanje u muzici, kao i za stvaranje same muzike. Oslanjamo se na svoju sposobnost sećanja kada čujemo muziku, dok slušamo muziku i kada pevamo ili sviramo. U okviru ovog plenarnog predavanja fokus će biti na ulozi pamćenja u zapadnjačkom učenju klasične muzike, njenom vežbanju i izvođenju, kao i na praktičnoj primeni dobijenih nalaza o pamćenju muzičara, strategijama pamćenja i evociranja muzike.

Od muzičara se nije oduvek očekivalo da sviraju napamet, a od mnogih se to ni danas ne traži. Međutim, od kraja 19. veka, kritičari i publika su počeli sve više da očekuju od muzičara – naročito od pijanista i solo pevača – da sviraju bez nota. Nekima se process pamćenja čini lakim, dok je drugima težak. Konkretno, nekolicina izuzetnih pijanista smatra da pamćenje notnog teksta sa sobom nosi više mana nego prednosti i spremni su da se suprostave ovoj važećoj konvenciji. Ovo stanovište biće razmotreno u kontekstu istraživanja preferencija publike, za muziku koja se izvodi sa, odnosno bez, nota.

Danas se od većine studenata na muzičkim konzervatorijumima (makar u Ujedinjenom Kraljevstvu!), bez obzira na instrument koji sviraju, očekuje da izvode program napamet. Pamćenje, kao takvo, međutim, nije uključeno u kurikulum: može se reći da predavači prenose studentima mudrost koju su stekli kroz sopstveno iskustvo. Tako pedagozi, već više od sto godina, predlažu mnoštvo različitih strategija, koje uključuju upotrebu vizuelne, auditorne, kinestetičke i analitičke memorije. Sredinom 20. veka psiholozi su počeli da istražuju pripreme muzičara za nastup, uključujući pamćenje. Od tada do danas postalo je dostupno mnoštvo nalaza o upamćivanju najrazličitijih vrsta informacija, uključujući i muziku. Ovi nalazi su većinom u skladu sa pomenutim savetima ranih pedagoga. Pažnja za detalje tokom učenja je ključna, da bi se omogućilo stvaranje precizne mentalne reprezentacije dela koje se izvodi. Pored toga, pažljivo usmereno pamćenje, uz upotrebu različitih pristupa, može pomoći izvođaču da se oseća sigurnije kada treba da svira napamet. Na kraju predavanja, na osnovu razmatranih nalaza istraživanja, biće istaknute preporuke za koje se nadamo da mogu biti korisne izvođačima i muzičkim pedagozima u praktičnoj pripremi nastupa, kada se program izvodi napamet.

Profesor **Džejn Ginsborg** je pridruženi direktor istraživačkog rada, direktor Centra za istraživanje muzičkog izvođenja i rukovodilac Programa za istraživačke studije na Kraljevskom severnom konzervatorijumu za muziku u Mančesteru. Delovala je kao akademski školovan vokalni izvođač savremene muzike pre nego što je počela da studira psihologiju na Otvorenom univerzitetu a zatim i započela doktorsko istraživanje pod mentorstvom Džona Slobode na Univerzitetu Kil. Dobitnica je nagrade „Van Laweence“ Britanskog udruženja za glas 2002. godine za istraživanje o strategijama pamćenja kod pevača, a ušla je i u uži izbor za Tajmsovu nagradu za visoko obrazovanje 2013. godine za istraživanje o muzičarima sa oštećenjem sluha. Objavila je veliki broj radova iz polja ekspertskog muzičkog izvođenja. Nedavno je postala glavni urednik časopisa *Musicae Scientiae*. Takođe je i pridruženi urednik časopisa *Music Performance Research* (2008–2019) i *Journal of Interdisciplinary Music Studies* kao i članica uređivačkog odbora časopisa *Psychology of Music* i *Performance Science (Frontiers in Psychology)*. Od 2012. do 2015. godine bila je predsednica Evropskog društva za kognitivne nauke o muzici (ESCOM). Njena istraživačka interesovanja uključuju zdravlje muzičara, sluh i dobrobit, ekspertsko individualno i grupno izvođenje, kao i primenjena istraživanja.

Memory for music: Research and practice for performers

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Abstract

Memory is intrinsic to the appreciation of music, and to the making of music. We draw on our ability to remember when we hear music, when we listen to music and when we sing or play music. In this keynote lecture, I will focus on the role of memory in Western classical music learning, practice and performance, and the practical applications of the findings of research on musicians' memory, memorizing strategies and recall for music.

Musicians have not always been expected to perform from memory, and many musicians are not expected to so. Since the end of the 19th century, however, critics and audiences have come to expect musicians – especially solo pianists and singers – to perform without the score. Some find the process of memorizing easy; others find it difficult. A few brave pianists, in particular, take the view that the disadvantages of memorizing outweigh the perceived advantages and are prepared to flout convention. This will be discussed in the context of research on audiences' preferences for music performed with and without the score.

Most students at music conservatoires today (at least in the United Kingdom!), regardless of the instrument they play, are nevertheless required to perform from memory. Memorizing *per se*, however, is not on the curriculum: teachers pass on the wisdom they have acquired from their own experience. Yet pedagogues have been suggesting a range of strategies, including the use of visual, auditory, kinaesthetic and analytic memory, for more than a hundred years. In the mid-20th century psychologists began to investigate musicians' preparation for performance, including memorization, and since then the findings of a wealth of research on memory for information of all kinds, including music, have become available. On the whole, they confirm much of the advice of the early pedagogues. Attention to detail while learning is vital, to ensure the formation of an accurate mental representation of the work to be performed. Thereafter, deliberate memorization using a variety of approaches can help the musician feel secure when performing from memory. In summary, the lecture will draw on the findings of research to make recommendations that I hope will be useful for musicians preparing to perform from memory and their teachers.

Professor **Jane Ginsborg** is Associate Director of Research, Director of the Centre for Music Performance Research and Programme Leader for Research Degrees at the Royal Northern College of Music (RNCM), Manchester, UK. She was a classically-trained professional singer specializing in contemporary music before studying psychology with the Open University and undertaking Ph.D. research under the supervision of John Sloboda at Keele University. Winner of the British Voice Association's Van Lawrence Award in 2002 for her research on singers' memorizing strategies and shortlisted for a Times Higher Education award in 2013 for research on musicians with hearing impairments, she has published widely in the field of expert musical performance. Recently appointed Editor-in-Chief of *Musicae Scientiae*, she is also Associate Editor of *Music Performance Research* (2008–2019) and the *Journal of Interdisciplinary Music Studies* and serves on the Editorial Boards of *Psychology of Music* and *Performance Science (Frontiers in Psychology)*. Between 2012 and 2015 she was President of the European Society for the Cognitive Sciences of Music. Recent and current research interests include musicians' health, hearing and wellbeing, expert individual and collaborative performance, and practice-led research.

Akušerska dilema, šema majke i muzičko-religiozni ritual

Ričard Parnkat

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Rezime

Moderno ljudsko ponašanje, uključujući reflektivni jezik, svest i religiozne/muzičke rituale, nastalo je pre 200 i 50 hiljada godina. U ovom izlaganju napraviću pregled trenutnih pokušaja da se objasni kako i zašto se to dogodilo. Zatim ću izložiti stav da je akušerska dilema, kreirana kombinacijom sposobnosti kretanja na dve noge (bipedalizam) i relativnom veličinom mozga čoveka (encefalizacija), bila kritičan događaj ili okidač. Tokom miliona godina, trudnoća (gestacija) je postajala sve kraća i u okviru dijade novorođenče-majka razvijane su nove forme komunikacije kako bi se kompenzovala bespomoćnost novorođenčeta i povećale njegove šanse za preživljavanje. Nova komunikacija gradi i potkrepljuje šemu novorođenčeta (Lorenz), koja je evocirana detetovom 'ljupkošću' i motivise negujuća ponašanja. Analogna, šema majke (ŠM) je multimodalna reprezentacija majke iz prelingvističke perspektive fetusa/novorođenčeta. Obe šeme su podržane endogenim opioidima i oksitocinom. Prenatalna ŠM je priprema za postnatalnu majka-novorođenče komunikaciju (tepanje), koja potpomaže dečije preživljavanje. Prenatalna ŠM uključuje sve aspekte majke koje fetus može da opazi: obrasci zvukova (glas, otkucaji srca, koraci, varenje), pokreti (hodanje) i menjanje biohemijskih koncentracija u amnitičkoj tečnosti i krvi placente. Svi ovi obrasci odražavaju majčino fizičko/emocionalno stanje. Po rođenju, prenatalna ŠM se transformiše u postnatalnu ŠM (majka kako je opaža novorođenče) zahvaljujući Pijaževom procesu akomodacije. Na osnovu ovoga, razmatram tezu da su bog/ovi i muzika kulturne transformacije pre- i/ili postnatalne ŠM. Teorija je u skladu sa kros-kulturalnim iskustvima rituala i snažnih iskustava sa muzikom uključujući i izmenjena stanja (vantelesna iskustva, posednutost, lebdenje, univerzalna fuzija) i spiritualnih bića (velikih, uzbudljivih, sve-mogućih, sve-znajućih, sve-volećih). Okidači ŠM uključuju pesmu, ritam, ples, kvazi-fetalne položaje i droge. Teorija je konzistentna sa kvazi-univerzalnim verovanjima uključujući ljudske i životinjske duhove (objašnjavajući smrt) i ljudske i životinjske kreatore (objašnjavajući univerzum); ona nije kontradiktorna postojećim evolucionim objašnjenjima. Činjenice koje potkrepljuju teoriju su indirektna i posredna; dokazivanje je problematično.

Ričard Parnkat je profesor sistemske muzikologije na Univerzitetu u Gracu (od 1998) i rukovodilac Centra za sistemsku muzikologiju pri istom univerzitetu (od 2009). Bio je predsedavajući Petnaeste međunarodne konferencije o muzičkoj percepciji i kogniciji i Desete trienalne konferencije Evropskog društva za kognitivne nauke o muzici (ICMPC15/ESCOM10), Grac, Montreal, La Plata, Sidnej (23–28. jul 2018). Bio je predsednik Evropskog društva za kognitivne nauke o muzici (ESCOM 2015–2018). Završio je osnovne studije muzike i nauke na Univerzitetu u Melburnu (1981), stekao počasno zvanje mastera fizike na Univerzitetu Nove Engleske (1982) i doktorat iz psihologije, muzike i fizike 1987. godine, pod mentorstvom Ketrin Elis (muzika), Nevila Flečera (fizika) i Vilijama G. Nobla (psihologija). U svojim istraživanjima bavi se muzičkim strukturama (visina, konsonance, harmonija, tonalnost, tenzija, ritam, metar, akcenat), muzičkim izvođenjem (psihologija, klavir, primene), poreklom tonalnosti i muzike, kao i muzikološkom interdisciplinarnošću, što sve uključuje psihologiju muzike, teoriju muzike, akustiku, psihoakustiku, istraživanje zvuka i muzike kompjuterskim programima, procese memorisanja, sociologiju muzike, filozofiju muzike, istoriju muzike, etnomuzikologiju i muzičko obrazovanje. Njegove knjige objavili su izdavači kao što su Springer i Oksford, a članke časopisi kao što su *Music Perception*, *Musicae Scientiae*, *Perception & Psychophysics*, *Journal of New Music Research*, *Music Performance Research*, *Contemporary Music Review* i *Perspectives of New Music*.

The obstetric dilemma, the mother schema, and musical-religious ritual

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Abstract

Modern human behavior, including reflective language and consciousness and religious/musical rituals, emerged between 200,000 and 50,000 years ago. I will survey current attempts to explain how and why this happened. I will then propose that the obstetric dilemma, created by a combination of bipedalism and encephalization, was the critical event or trigger. Over millions of years, gestation became shorter and infant-mother dyads developed new forms of communication to compensate for infant helplessness and enhance infant survival. The new communication built upon and reinforced the infant schema (Lorenz), which is evoked by infant 'cuteness' and motivates nurturing behaviors. The analogous mother schema (MS) is a multimodal representation of the mother from the prelinguistic fetal/infant perspective. Both schemas are supported by endogenous opioids and oxytocin. Prenatal MS prepares for postnatal mother-infant communication (motherese), which promotes infant survival. Prenatal MS includes all aspects of the mother that the fetus can perceive: sound patterns (voice, heartbeat, footsteps, digestion), movements (walking), and changing biochemical concentrations in amniotic fluid and placental blood. All these patterns reflect maternal physical/emotional state. At birth, prenatal MS transforms to postnatal MS (the mother as perceived by the infant) by a Piagetian process of accommodation. On this basis, I examine the thesis that god/s and music are cultural transformations of pre- and/or postnatal MS. The theory is consistent with cross-cultural ritual experiences and strong experiences with music including altered states (out-of-body, spirit possession, floating, universal fusion) and spiritual beings (large, moving, all-powerful, all-knowing, all-loving). MS-triggers include chant, rhythm, dance, quasi-fetal postures, and drugs. The theory is consistent with quasi-universal beliefs including human or animal spirits (explaining death) and human or animal creators (explaining the universe); it does not contradict existing evolutionary explanations. Evidence for the theory is circumstantial and cumulative; falsification is problematic.

Richard Parncutt is Professor of Systematic Musicology, University of Graz, Austria (since 1998) and director of the Centre for Systematic Musicology, the University of Graz (since 2009). He was chair of the 15th International Conference on Music Perception and Cognition combined with 10th triennial conference of the European Society for the Cognitive Sciences of Music (ICMPC15/ESCOM10), Graz, Montreal, La Plata, Sydney (23–28 July 2018) and president of the European Society for the Cognitive Sciences of Music (ESCOM, 2015–2018). He holds Bachelor's degrees in Music and Science, University of Melbourne, Australia (1981), an Honours (Master's) degree in Physics, University of New England (UNE), Australia (1982) and an interdisciplinary PhD in psychology, music and physics (UNE) with supervisors Catherine Ellis (music), Neville Fletcher (physics), William G. Noble (psychology) (1987). His research addresses musical structure (pitch, consonance, harmony, tonality, tension, rhythm, meter, accent), music performance (psychology, piano, applications), origins of tonality and of music, and musicological interdisciplinarity, and it involves music psychology, music theory, music acoustics, psychoacoustics, sound and music computing, music information retrieval, music sociology, music philosophy, music history, ethnomusicology, and music education. He has books with Springer and Oxford and articles in *Music Perception*, *Musicae Scientiae*, *Perception & Psychophysics*, *Journal of New Music Research*, *Music Performance Research*, *Contemporary Music Review*, and *Perspectives of New Music*.

Izražajnost i komunikacija u izvođačkim ansamblima

Rene Timers

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Rezime

Šta izvođači međusobno komuniciraju kada zajednički izvode muziku, kako se uspostavlja ta komunikacija i na koji način ti procesi utiču na izražajnost njihovog izvođenja? Tokom ove prezentacije biće razmotrena postojeća istraživanja, kao i neki od novijih rezultata vezanih za pomenuta pitanja. Na osnovu istraživanja o muzičkom izrazu u solističkom izvođenju, pokazuje se da izvođači imaju tendenciju da komuniciraju i interpretiraju muzičku strukturu i emocije slušaocima kroz modulaciju neverbalnih auditornih i vizuelnih signala. Međutim, toj vrsti komunikacije u okviru muzičkih ansambala posvećeno je manje pažnje. U skupnom muziciranju, komunikacija je ispitivana kao proces koji poboljšava koherentnost izvođenja, kroz vremensku sinhronizaciju, štimovanje i uklapanje zvuka, gde opet zvučni i, donekle, vizuelni signali imaju važnu ulogu. Prva perspektiva podrazumeva da izvođači u okviru ansambla teže zajedničkim ciljevima u okviru izvođenja i da imaju slične, zajedničke muzičke interpretacije. Druga perspektiva naglašava pojavna i dinamička svojstva nastupa ansambla, gde se članovi prilagođavaju jedni drugima u realnom vremenu, komunicirajući na implicitni način, bez određenog koncepta. Biće prikazani i primeri sa proba ansambala, koji podržavaju navedene dve perspektive. Da bismo pomirili oba stanovišta, poslužićemo se saznanjima o konceptualnom mešanju, gde modalna i kros-modalna svojstva vezana za stvaranje muzike pružaju informacije koje nam omogućavaju razumevanje muzike, koje je dalje oblikovano uticajem konteksta na razumevanje muzičkog značenja i izvođačkog stila.

Rene Timers je profesor psihologije muzike na Univerzitetu u Šefildu, gde rukovodi master programom Psihologija muzike i istraživačkim centrom Muzika, um, mašina u Šefildu. Školovala se u domenu muzikologije i psihologije u Holandiji. U istraživanjima koristi interdisciplinarne metode i tehnike u cilju unapređenja razumevanja načina na koji se muzika izvodi i doživljava. Njen rad uključuje publikacije o ekspresivnosti muzičkog izvođenja, izrazu i opažanju emocija u muzici, interakcijama između muzičke kognicije i emocija i kros-modalnim iskustvima muzike. Među nedavno objavljenim izdanjima su *Ekspresivnost u muzičkom izvođenju: empirijski pristupi kroz stilove i kulture* [*Expressiveness in music performance: Empirical approaches across styles and cultures*, Oxford University Press, 2014] i *Ratlidžov zbornik za muzičku kogniciju* [*The Routledge companion to music cognition*, Routledge, 2017]. Bila je članica uredničkih odbora nekoliko vodećih časopisa iz oblasti psihologije muzike, a trenutno je predsednica Evropskog društva za kognitivne nauke o muzici (ESCOM). U ovoj ulozi nastavlja da promovise interdisciplinarne perspektive muzičke kognicije, te organizaciju događaja (virtuelnih i direktnih) koji povezuju istraživače iz različitih geografskih i disciplinarnih područja.

Expression and communication in ensemble performance

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Abstract

What do performers communicate when performing music together, how is communication established, and how do these processes give rise to an expressive ensemble performance? In this presentation, I consider existing research as well as new data related to these questions. From research on expression in solo performance, the potential is clear for performers to communicate an interpretation of musical structure and emotion to listeners through the modulation of non-verbal auditory and visual cues. Such communication has received less emphasis in the context of ensemble performance. In ensembles, communication is investigated as processes that facilitate ensemble coherence through synchronized timing, ensemble tuning and blend, in which again auditory and, to a degree, visual cues play an important role. The first perspective implies that ensemble performers work towards the formulation of shared performance goals, and have similar, shared musical interpretations. The second perspective emphasizes the emergent and dynamic properties of ensemble performance, where ensemble members adjust to each other in real-time, creating communication in an implicit non-conceptual manner. Examples from ensemble rehearsal data will be presented that support both of these perspectives. To reconcile the two, I will borrow the notion of conceptual-blending where modal and cross-modal properties related to music-making inform our understanding of music, that is further shaped by a contextually informed understanding of musical meaning and performance style.

Renee Timmers is Reader in Psychology of Music at The University of Sheffield, where she directs the MAs in Psychology of Music, and the research center Music, Mind, Machine in Sheffield. Trained in musicology and psychology in the Netherlands, her research employs interdisciplinary methods and techniques to enhance the understanding of how music is performed and experienced. Specifically, her work includes publications on expressive music performance, expression and perception of emotion in music, interactions between music cognition and emotion, and cross-modal experiences of music. Recently published volumes include *Expressiveness in music performance: Empirical approaches across styles and cultures* (OUP, 2014) and *The Routledge companion to music cognition* (Routledge, 2017). She has served on the editorial board of several of the leading journals in the psychology of music and is currently President of the European Society for the Cognitive Sciences of Music (ESCOM). Within this role, she continues to promote interdisciplinary perspectives on music cognition, and the organization of virtual and live events to connect researchers from geographically as well as disciplinary diverse areas.

Tematska sesija 1
MUZIČKI RAZVOJ NA PREDŠKOLSKOM UZRASTU

Thematic Session 1
MUSIC DEVELOPMENT IN PRE-SCHOOL AGE

Uspavanke i prevremeno rođene bebe: doprinos proučavanju pevanja bebama na Odeljenju za neonatalnu intenzivnu negu

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Teorijske osnove

Prisustvo uspavanki uočeno je širom sveta, u svim kulturama i istorijskim periodima. Međutim, čini se da je danas došlo do opadanja interesovanja za praksu i izučavanje uspavanki u različitim kontekstima (Esteve-Faubel, Esteve-Faubel, Cavia-Naya, & Benlloch, 2014; Doja, 2014). Saopšteno je da u Portugaliji mali broj majki i edukatora zna i koristi ovaj repertoar da bi uspavao svoje bebe (Canez, 2008; Castro, 2013). Mi smo proučavali slučaj portugalskog Odeljenja za neonatalnu intenzivnu negu prevremeno rođenih beba, kako bismo izučili ovaj specifičan kontekst.

Ciljevi

Cilj studije je da stvori više specifičnih podataka u kontekstu direktnog pevanja novorođenčetu u slučaju prevremeno rođenih beba u portugalskom Odeljenju za neonatalnu intenzivnu negu, kao dopunu ograničenoj postojećoj literaturi. Naša namera je da razumemo šta i kako ove majke pevaju tokom uspjavanja beba, fokusirajući se na uspavanke kao specifičnu naviku interakcije između majke i novorođenčeta.

Metod

Koristili smo kvantitativni metod, u studiji slučajeva, u kojoj je 36 majki pevalo bez reči svojim hospitalizovanim, prevremeno rođenim bebama između 32 i 37 nedelje trudnoće, držeći ih u rukama na poseban način, podržavajući bebu u položaju dijagonalne fleksije, kao što to rade kenguri (Buil, Carchon, Apter, Laborne, Gratier, & Devouche, 2016). Repertoar pesama smo analizirali prema parametrima i analizirali njihove karakteristike, odnosno melodijske konture, intervalski okvir, visinu, ritam, tempo i formu. Učesnice su takođe odgovarale na upitnik o navikama pevanja svojim bebama.

Rezultati

Repertoar pesama koji je pevan od strane učesnika uglavnom se bazirao na već postojećim melodijama, često korišćenim melodijama, kao što su Bramsova *Uspavanka*, *Sijaj, sijaj zvezdo mala* ili *Srećan rođendan*. Nekoliko majki odabralo je da peva portugalske pesme za igru ili uspavanke. Improvizovano pevanje je bilo visoko repetitivno i uglavnom u celim tonovima. Starije i obrazovanije majke pevale su postojeće melodije, a mlađe majke težile su improvizaciji.

Zaključci

Ova studija pokazala je da majke više nastoje da pevaju pesme za odrasle i poznate dečje pesme svojim bebama koje su hospitalizovane, nego tradicionalne portugalske pesme i uspavanke, što sugerise, kako su pokazale i druge studije (Grasina, 2017), da majkama nije blizak repertoar portugalskih pesama. Moguće je da socijalne promene u porodici u Portugalu (Leandro, 2006), kao i razvoj uređaja za reprodukciju koji zamenjuju glas majke, dovode do ove činjenice (Baker & Mackinlay, 2006). Karakteristike improvizovanog repertoara, koje mogu biti povezane sa pokušajem da se zadovolji i umiri beba su, takođe, zajedničke sa opuštenim pevanjem ženskog glasa. Buduće studije trebalo bi da nam kažu nešto o vokalnom i psihološkom odgovoru novorođenčadi na ove pesme.

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Ključne reči: direktno pevanje odojčetu, uspavanke, glas majke, prevremeno rođene bebe, muzika u Odeljenja za neonatalnu intenzivnu negu.

Lullabies and pre-term infants: A contribution to the study of infant-directed singing in the NICU

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Background

The presence of lullabies has been observed around the world, in all cultures and historical periods. However, nowadays it seems that there has been a decrease in the knowledge and practice of lullabies in several contexts (Esteve-Faubel, Esteve-Faubel, Cavia-Naya, & Benlloch, 2014; Doja, 2014). It has been reported that in Portugal a small number of mothers and educators know and use this repertoire in order to lull their babies (Canez, 2008; Castro, 2013). We studied the case of a Portuguese Neonatal Intensive Care Unit (NICU) in order to observe this specific context.

Aims

This study aims to produce more scientific data in the context of *Infant Directed Singing* in the case of pre-term infants in Portuguese NICU, as a complement to the limited existing literature. Our purpose was to understand what and how these mothers sing to lull their babies, focusing on lullabies as a specific behavior of mother-infant interaction.

Method

We used a quantitative method, with a study case, where 36 mothers sang without words to their hospitalized preterm infants born between 32 and 37 weeks of gestation, in Kangaroo Supported Diagonal Flexion Positioning (Buil, Carchon, Apter, Laborne, Gratier, & Devouche, 2016). We parametrize the repertoire and analyze its characteristics, namely the melodic contours, range pitch, melodic intervals, rhythm, tempo and form. The participants also responded to a questionnaire regarding the habits of singing to their baby.

Results

The repertoire sung by the participants was mainly based on pre-existing, highly mediated melodies such as Brahms's *Lullaby*, *Twinkle Twinkle Little Star* or *Happy Birthday*. Few mothers chose to sing Portuguese play songs or lullabies. The improvised singing was highly repetitive and mostly by whole tones. Older and more educated mothers sang more pre-existing melodies and younger mothers tended to improvise.

Conclusions

This study showed that these mothers tend to sing more adult songs and children's mediated songs to their hospitalized babies than traditional Portuguese play songs or lullabies suggesting that, as shown in other studies (Grasina, 2017) mothers are not familiar with the Portuguese repertoire. It is possible that the sociological changes of a family in Portugal (Leandro, 2006), as well as the development of automatic reproduction devices that replace mother's voice, led to this fact (Baker & Mackinlay, 2006). The characteristics in the improvised repertoire, which may be related to an attempt to please and calm the baby, were also common to a comfortable chant for a female voice. Further studies should tell us the vocal and physiological response of preterm infants to these songs.

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Keywords: infant-directed singing, lullabies, mother's voice, pre-term infants, music in NICU.

Efekti pokreta i plesnih aktivnosti na razvoj ritmičkih sposobnosti kod dece uključene u Montessori vrtić

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Teorijske osnove

U Montessori pedagogiji muzika ima ulogu ekspresivnog jezika, koji se najbolje uči u pripremljenom okruženju, gde pokret sa muzikom predstavlja važan aspekt muzičkog razvoja. Autori navode pozitivne efekte pokreta (Derri, Tsapakidou, Zachopoulou, & Kioumourtzoglou, 2001), te to da su muzika i pokret povezani dinamičkom strukturom koja podržava univerzalne principe emocija (Sievers, Polansky, Casey, & Wheatley, 2012). Braun Barnett (1973) navodi da se redovnim izlaganjem muzici i slobodi pokreta deca prilagođavaju ritmičkim i metričkim karakteristikama muzike.

Ciljevi

Cilj je da se, prema Montessori pedagogiji, prouči efekat pokreta i plesnih aktivnosti na razvoj ritmičkih sposobnosti dece Montessori vrtića. Želimo da utvrdimo da li će deca iz dve eksperimentalne grupe (EG1: pokret sa živom muzikom, EG2: pokret sa snimanom muzikom) razviti ove sposobnosti bolje od dece iz kontrolne grupe (KG) i da li na razvoj utiče način na koji se aktivnosti izvršavaju.

Metod

Uzorak je činilo 59 predškolaca (starost $M = 4.0$) iz tri Montessori vrtića, koji su predstavljali EG1, EG2 i KG. Koristili smo instrument koji smo sastavili na osnovu utvrđenih instrumenata (Denac, 2002; Gordon, 1986; Šumer, 2017) i testirali razlike ritmičkih sposobnosti između grupa u početnom stanju i nakon tri meseca aktivnosti uz pomoć t -testa i Koenovog d kao mere veličine efekta.

Rezultati

Testiranjem inicijalnog stanja (Levenov test i ANOVA), utvrdili smo da ne postoje statistički značajne razlike u razvoju ritmičkih sposobnosti među grupama. Nakon završetka niza aktivnosti, testirali smo finalno stanje koristeći isti instrument i zatim uporedili finalne i inicijalne rezultate grupa: u KG nema statistički značajnih razlika ($p = .206$), efekat mirovanja je nizak ($d = 0.113$); postoje statistički značajne razlike u EG1 ($p = .000$), a efekat aktivnosti je bio visok ($d = 1.252$); u EG2 takođe uočavamo razlike ($p = .000$), ali je efekat aktivnosti nešto niži nego u EG1 ($d = 0.981$).

Zaključci

Možemo zaključiti da pokreti sa muzikom (posebno sa živom muzikom), prema Montessori pedagogiji, pozitivno utiču na razvoj muzičkih sposobnosti kod predškolske dece.

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Ključne reči: ritmičke sposobnosti, aktivnosti pokreta, Montesori pedagogija, predškolsko obrazovanje.

The effects of movement and dance activities on the development of rhythmic abilities of children involved in the Montessori preschool

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Background

In the Montessori pedagogy music is an expressive language which is best learned in a prepared environment, where movement with music represents an important aspect of musical development. The authors identify the positive effects of movement activities (Derri, Tsapakidou, Zachopoulou, & Kioumourtzoglou, 2001) and state that music and movement are linked by a dynamic structure supporting universal expressions of emotion (Sievers, Polansky, Casey, & Wheatley, 2012). Braun Barnett (1973) states that with regular exposure to music and the freedom of movement, children adapt to the rhythmic and metric characteristics of the music.

Aims

The purpose is to study the effect of the movement and dance activities, according to the Montessori pedagogy, on the development of rhythmic abilities of the Montessori kindergarten's children. We want to establish whether children from two experimental groups (EG1: movement with live music, EG2: movement with musical recording) will develop these abilities better than children from a control group (CG) and whether the development is affected by the manner in which the activities are executed.

Method

We used a sample of 59 preschool children (age $M = 4.0$) from three Montessori preschool units representing the EG1, EG2 and CG. We used the instrument that we compiled from established instruments (Denac, 2002; Gordon, 1986; Šumer, 2017) and tested the differences of rhythmic abilities between the groups in the initial state and after three months of activities with the t-test and effect size (Cohen's d).

Results

By testing the initial state (Levene's test and ANOVA), we found that there are no statistically significant differences in the development of rhythmic abilities among the groups. After finishing

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the series of activities, we tested the final state using the same instrument and then compared the final and initial results of the groups: in the CG there are no statistically significant differences ($p = .206$), the quiescence effect is low ($d = 0.113$); there are statistically significant differences in EG1 ($p = .000$), and the effect of activity was high ($d = 1.252$); in EG2 we also notice differences ($p = .000$), but the effect of the activity is slightly lower than in EG1 ($d = 0.981$).

Conclusions

We can conclude that movement with music (especially with live music), according to the Montessori pedagogy, positively influences the development of musical abilities in pre-school children.

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Keywords: rhythmical abilities, movement activities, Montessori pedagogy, preschool education.

Interaktivni koncerti klasične muzike za bebe i decu – Baby Artysh

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Teorijske osnove

Baby Artysh interaktivni koncerti baziraju se na znanjima u polju neurologije, muzičke pedagogije i psihologije, koji ukazuju na pozitivno dejstvo bavljenja muzikom na kognitivni, emotivni i socijalni razvoj dece i na proces učenja (Longhi & Pickett, 2008; Radoš, 2010; NSCDC, 2007; Thompson, Schellenberg, & Husain, 2001). Predstavljeno istraživanje je deo projekta *Koncerti i muzičke radionice za decu u ranom detinjstvu, od 0 do 6 godina* koji je finansiran od strane Fondacije Trag, Beograd i uključuje i rad sa decom sa teškoćama u razvoju. Koncerti su bazirani na slušanju i izvođenju muzike u grupi, kao i na pokretu i igri učesnika. U skladu sa prirodom muzičkog dela, osmišljava se jednostavan pokret uz korišćenje rekvizita (dečije udaraljke, šarene marame) što pojačava doživljaj muzike. Muzika izvedena 'uživo', posebno ona sa umirujućim i emotivnim komponentama ima blagotvorno dejstvo u situacijama kada deca ispoljavaju anksioznost.

Ciljevi

Ciljevi opservacione studije tiču se sistematskog praćenja reakcija, emocija i ponašanja dece, kao i intenziteta ispoljavanja emocija dece tokom interaktivnih koncerata.

Metod

U interaktivnim koncertima učestvovala su deca uzrasta od 1 do 16 godina koja pohađaju razvojni vrtić Venčić (20, 12 dečaka i 8 devojčica, 6–9 godina) i dece koja žive u starateljskim uslovima Centra za zaštitu odojčadi, dece i omladine (CZODO) (50, 29 devojčica i 21 dečak, 1 do 16 godina). U poduzorku dece iz razvojnog vrtića Venčić za decu sa teškoćama, najveći broj dece ima dijagnozu poremećaja iz autističnog spektra i mešovitog razvojnog poremećaja (45%), zatim cerebralne paralize (30%), potom različitih sindroma (20%), među kojima je najbrojniji Daunov sindrom i sindrom intelektualne ometenosti (5%). Poduzorak dece iz CZODO obuhvata 52,9% dece tipičnog razvoja, dok su ostala deca sa teškoćama u razvoju. U periodu od šest meseci (2016/2017) Artyhs:lab je izveo 16 koncerata klasične muzike u izvođenju kamernog dua (violina i klavir), uz vođenje programa od strane autora. Svako dete je imalo pratioca (defektologa, medicinsku sestru) čiji je zadatak bio da prati i beleži reakcije u toku koncerta u formular za procenu – aspekte ponašanja (9 indikatora) i emocionalne reakcije (sreća, tuga, strah, stidljivost, iznenađenje, ljutnja). Intenzitet emocionalnih reakcija izražavan je na Likertovoj skali procene, od 1–5. Obrada podataka obuhvatila je metode deskriptivne i parametrijske statistike izvedene u SPSS softveru.

Rezultati

Rezultati istraživanja pokazuju da se ponašanje dece odlikuje, najčešće, praćenjem pogledom voditelja koncerta i izvodača (65.6%) i tapšanjem (40.5%) dok svega 8.4% ne ispoljava nikakvu reakciju na muziku. Najčešće ispoljavana emocija je sreća (97.7%) i iznenađenje (51.1%) pri čemu deca koja odrastaju u domu, u odnosu na decu iz porodice koja pohađaju vrtić Venčić, statistički značajno češće ispoljavaju ovu drugu emociju ($t(69) = 3.593, p < .01$). Emocija sreće najčešće je ispoljena izrazito jakim intenzitetom (50.4%), dok su ostale emocije najčešće ispoljene slabim ili umerenim intenzitetom.

Zaključak

Rezultati pokazuju da planski sprovedene aktivnosti uz odgovarajuću muziku izazivaju kod dece pozitivne reakcije. Muzika kao sredstvo aktivacije pobuđuje 'iznenađenje' koje ima u osnovi mogućnost da probudi radoznalost, što predstavlja podsticaj za kognitivni razvoj. Stoga, muzičke aktivnosti u ranom detinjstvu predstavljaju šansu za podsticaj kognitivnog razvoja, posebno u okolnostima kada muzika na ovakav ili sličan način nije prisutna.

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Ključne reči: razvoj, muzika, bebe, deca.

Interactive concerts of classical music for babies and children – Baby Artysh

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Background

Baby Artysh interactive concerts are based on knowledge from neurology, music pedagogy and psychology which point to the positive impact of music activities on the cognitive, emotional and social development of children and learning process (Longhi & Pickett, 2008; Radoš, 2010; NSCDC, 2007; Thompson *et al.*, 2001). This research is part of wider project *Concerts and music workshops for children in early childhood, 0 to 6 years old*, financed from Foundation Trag, Belgrade, where work with children with disabilities is also included. Concerts are based on listening to music in a group, movement and play of participants. According to the nature of compositions, simple movement with the use of props (percussions, scarves) is designed, which enhances the experience of music. Music performed 'live' especially that with soothing and emotional components, has a beneficial effect in situations where children express anxiety.

Aims

Aims of this observational study are to systematically monitor the reactions, emotions and behavior of children, and intensity of their emotions during interactive concerts.

Method

The sample is consisted of children aged 1 to 16 from developmental kindergarten Venčić (20, 12 boys and 8 girls, 6–9 years old) and children living under custody conditions in Centre for the Protection of Infants, Children and Youth (CPICY) (50, 29 girls and 21 boys, 1 do 16 years old).

In the sub-sample of children from Venčić, the majority have a diagnosis of autistic spectrum disorder and mixed developmental disorder (45%), cerebral paralysis (30%), various syndromes (20%), the most numerous is Down syndrome, and intellectual disability (5%). The subsample of children from CPICY includes 52.9% of children of typical development, while other children are with developmental disabilities. During the six months (2016/2017) Artyhs: lab performed 16 concerts (violin and piano), with concert mediation by the author. Each child had a follower (defectologist, nurse) whose task was to monitor and record reactions during the concert in a form of assessment – aspects of behavior (9 indicators) and emotional reactions (happiness, sorrow, fear, shyness, surprise, anger). The intensity of emotional reactions was expressed on the Likert scale, from 1–5. Data processing included methods of descriptive and parametric statistics derived from SPSS software.

Results

Results show that children usually follow concert leader and performers with the look (65.6%) and clapping (40.5%), while only 8.4% do not show the reaction to music. Most commonly expressed emotions are happiness (97.7%) and surprise (51.1%), where children who grow up in the CPICY, compared to children in families who are attending kindergarten Venčić, show the second emotion significantly more often ($t(69) = 3.593, p = .01$). The emotion of happiness is usually expressed with very strong intensity (50.4%), while other emotions are usually expressed with weak or moderate intensity.

Conclusions

Results show that carefully planned activities, with adequate music, may generate positive reactions in children. Music as a mean of activation arouses ‘surprise’ which in turn, has the capacity to induce curiosity, important incentive for cognitive development. Therefore, music activities in early childhood create an opportunity for cognitive development stimulation, especially in circumstances when music in this or some other way is not present.

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Keywords: development, music, baby, children.

Povezanost muzičkih aktivnosti, stavova i muzičkog obrazovanja vaspitača

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Teorijske osnove

Značaj vaspitno-obrazovnih predškolskih ustanova za razvoj dečijih muzičkih sposobnosti se srazmerno uvećava u odnosu na mogućnosti razvoja i usmeravanja kreativnih potencijala deteta i negovanje muzičkog obrazovanja kao podsticajnog sredstva u ličnom razvoju (Matić i Mirković-Radoš, 1986; Bašić, 1987). Za početak je neophodno da postoji razvijena svest vaspitača o postojanju kritičnih perioda u muzičkom razvoju, saznanja o svakom detetu kao ličnosti i zasebnom psihološkom entitetu i adekvatno poznavanje muzike, kao osnovnog agensa u uslovima muzičkog razvoja (Nešić, Nešić, Milićević i Todorović, 2006). Ukoliko osoba poseduje veća znanja u oblasti muzike, pretpostavlja se da će biti uspešnija u ostvarivanju muzičkih aktivnosti u okviru svog posla (Nejgauz, 1970).

Ciljevi

Predmet istraživanja je povezanost između učestalosti realizacije određenih oblika muzičkih aktivnosti u predškolskim grupama i stavova prema važnosti muzike u životu predškolske dece, u zavisnosti od muzičkog obrazovanja vaspitača i njihove samoprocene muzičkih sposobnosti. Problem istraživanja se zasniva na pitanjima: da li učestalost određenih oblika muzičkih aktivnosti u vrtiću zavisi od toga da li vaspitači znaju/ne znaju da sviraju muzički instrument; da li postoji povezanost između samoprocene umeća sviranja na muzičkom instrumentu i pevanja, sa određenim oblicima muzičkih aktivnosti kao i stavovima prema važnosti muzike u životu predškolske dece.

Metod

Uzorak istraživanja se sastoji od 185 vaspitača, od čega su 93 izjavile da znaju da sviraju neki muzički instrument, a 92 ne. Korišćen je upitnik sastavljen za potrebe ovog istraživanja, a odnosi se na pitanja vezana za muzička interesovanja dece, percepciju muzike, muzičke aktivnosti i osnovne podatke vezane za vaspitače i radne uslove ustanove. Istraživanje je sprovedeno početkom marta 2019.

Rezultati

Vaspitače koje sviraju neki muzički instrument prepoznale su da muzičke aktivnosti značajno pomažu deci u lakšem usvajanju saznanja iz drugih vaspitno-obrazovnih oblasti ($t(181) = 1.829$, $p = .051$). Ovakav stav korelira i sa samoprocenom umeća sviranja ($r = .168$, $p = .023$) i samoprocenom umeća pevanja ($r = .225$, $p = .002$), dok umeće pevanja korelira sa višim prepoznavanjem značaja uloge muzike u životu predškolskog deteta ($r = .268$, $p = .000$). Dobijena je korelacija između samoprocene umeća pevanja i učestalosti muzičkih aktivnosti ($r = .172$, $p = .020$), dečjeg pevanja uz muzičku pratnju ($r = .195$, $p = .008$) i dečjeg pevanja uz ritmičke instrumente ($r = .243$, $p = .001$). Samoprocena umeća sviranja ostvaruje statistički značajnu korelaciju samo dečjim pevanjem uz muzičku pratnju ($r = .176$, $p = .018$). Rezultati regresione analize ($R^2 = .113$, $F(4,159) = 5.080$, $p = .001$) pokazali su da pozitivni stavovi prema ulozi muzike u životu predškolskog deteta ($\beta = 0.201$, $t = 2,487$, $p = .01$) i stav da muzika pomaže deci u lakšem usvajanju saznanja iz drugih

oblasti ($\beta = 0.173$ $t = 2,152$, $p = .03$), ostvaruju statistički značajni udeo u predikciji učestalosti muzičke aktivnosti. Razlika u prikazanim stepenima slobode od ukupnog uzorka rezultat je izostavljanja odgovora na pojedinim pitanjima iz upitnika.

Zaključci

Pretpostavljena uloga važnosti muzičkog obrazovanja vaspitača za uspješnije bavljenje poslom delimično je potvrđena. Pokazalo se da su muzičke aktivnosti u vrtićima češće ukoliko su vaspitačice svoje umeće sviranja i pevanja procenile kao više. Razlog za to može ležati u motivaciji, proizašloj iz doživljaja lične kompetentnosti, za češćim organizovanjem ovakve vrste aktivnosti koja vodi formiranju pozitivnog stava, a što je u skladu sa teorijskim pretpostavkama ovog rada.

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Ključne reči: muzičke aktivnosti, predškolski uzrast, muzičko obrazovanje, vaspitači.

The relation between musical activities, attitudes and music education of pre-school teachers

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Background

The importance of preschool for the development of musical abilities of children is proportionally increasing in accordance with the existence of various possibilities, such as stimulation of the creative potential of the child, the development of music education as an incentive asset in personal development (Matić and Mirković-Radoš, 1986, Bašić, 1987). In the beginning, it is necessary to have a developed awareness of the educators about the existence of critical periods in the music development, then to introduce the child as a person and an individual psychological entity as well as to have adequate knowledge of music as the basic agent of musical development (Nešić, Nešić, Miličević and Todorović, 2006). If a person possesses better knowledge in the field of music, we presume that he/she will be more successful in activities in the field of music (Nejgauz, 1970).

Aims

The subject of this research is to examine the relation between the frequency of realization of certain forms of musical activities in preschool groups and attitudes towards the importance of music in the life of preschool children, depending on the music education of educators and their self-evaluation of musical abilities. The problem of research is based on the questions: is the fre-

quency of certain forms of musical activities in kindergartens dependent on whether educators know/do not know how to play a musical instrument; is there a connection between the self-evaluation of the knowledge of playing on a musical instrument and singing with certain forms of musical activities, as well as attitudes towards the importance of music in the life of pre-school children.

Method

The research sample consists of 184 female educators, from which 93 said that they know to play a musical instrument, whereas 92 said that they do not know how to play on any musical instrument. A questionnaire is designed for the purpose of this research, aiming to explore the issues related to the music interests of children, the perception of music, music activities and basic data related to educators and working conditions of the institution. The survey was conducted in early March 2019.

Results

Educators who play a musical instrument have recognized that musical activities significantly help children in easier acquiring knowledge in other areas of educational work ($t(181) = 1.829$, $p = .000$). This attitude correlates with the self-evaluation of instrument playing skills ($r = .168$, $p = .023$) and self-evaluation of singing skills ($r = .225$, $p = .002$), while singing skills correlate with assuming highly important role of music in the life of a preschool child ($r = .268$, $p = .000$). Correlation was obtained, between the preschool teachers' self-evaluation of singing skills and: the frequency of musical activities with children ($r = .172$, $p = .020$), musical accompaniment when children sing ($r = .195$, $p = .008$) and children's singing with rhythmic instruments accompaniment ($r = .243$, $p = .001$). Higher estimation of music instrument skills correlates only with a more frequent child singing with musical accompaniment ($r = .176$, $p = .018$). The results of the regression analysis ($R^2 = .113$, $F(4,159) = 5.080$, $p = .001$) have shown that the positive attitudes towards the role of music in the life of a preschool child ($\beta = 0.201$, $t = 2.487$, $p = .01$) and the attitude that music helps children to acquire knowledge more easily in other areas of educational work ($\beta = 0.173$, $t = 2.152$, $p = .03$), were statistically significant predictors of a frequency of musical activity. The difference in the degrees of freedom shown, which differs from the total sample, is the result of missing answers.

Conclusions

The assumed role of the importance of preschool teacher's music education for more successful work is partly confirmed. It is demonstrated that musical activities in a preschool are more frequent if educators evaluated their skills as advanced. The reason for this may lie in motivation, stemming from a feeling of personal competence, for the more frequent organization of this kind of activities that lead to the formation of a positive attitude, which is in accordance with the theoretical assumptions of this paper.

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Keywords: musical activities, preschoolers, musical education, educators.

Tematska sesija 2
MUZIKOTERAPIJA ZA DECU SA
RAZVOJNIM TEŠKOĆAMA

Thematic Session 2
MUSIC THERAPY FOR CHILDREN
WITH DEVELOPMENTAL DIFFICULTIES

Značaj rane intervencije muzikoterapijom kod poteškoća iz autističnog spektra

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Teorijske osnove

Predstavljena studija slučaja je deo uzorka istraživanja (Roy Chaudhury & Ilić, 2018) kojim je predstavljen napredak u razvoju socio-emocionalnih odnosa (28%), senzornih procesa (21%), kognitivnih procesa (24%), neverbalne komunikacije (22%), pažnje (39%) i imitacije (29%) koji se ogleda u trendu rasta na ovim skalama i statistički značajnoj, pozitivnoj, procentualno predstavljenj razlici aritmetičkih sredina na osnovu skora uparenog t-testa. Ovim istraživanjem su evaluirane strategije intervencije i tehnike muzikoterapijskog modela Nordoff-Robbins (Pavličević, 2015), u kombinaciji sa metodama Floortime terapije (Greenspan & Greenspan, 2010) u studiju Musicorn.

Cilj

Cilj ove studije slučaja je utvrditi značaj rane intervencije u vidu stimulacije razvoja deteta sa poteškoćama iz autističnog spektra.

Metod

Celokupni uzorak čini 10 klijenta od 3 do 10 godina starosti, sa dijagnostikovanim poteškoćama iz autističnog spektra. Evaluiran je period od februara do juna 2016. godine i period od marta do juna 2017. godine. Tokom prvog segmenta terapeuti su se smenjivali u radu sa klijentom na nedelju dana, pa je terapeut koji ne radi sa klijentom vršio opservaciju. Tokom drugog segmenta istraživanja uvodi se nezavisni posmatrač. Studija slučaja je sačinjena na osnovu izveštaja muzikoterapeuta, psihologa i psihijatra u periodu od godinu dana, kao i skorova na M-Chat-R upitniku (Robins, Fein & Barton, 2009).

Rezultati

Dečak rođen 2014. godine, ima brata blizanca, stariju sestru i brata. Živi sa oba roditelja. Na tretmane dolazi po preporuci psihijatra od maja 2016 godine. Dijagnostifikovan Usporen psihomotorni razvoj i Poteškoće iz spektra autizma u opservaciji. Na početku rada, maja 2016. godine, primećen je deficit aktivne usmerene pažnje praćen povremenim senzornim preokupacijama. Delimično naučen i izolovan pokazni gest uz povremen ali kratkotrajan kontakt očima. Odsustvo integracije i modulacije senzornih procesa. Nakon godinu dana rada, pokazuje napredak u socio-emocionalnim odnosima koji se ogleda u deljenju radosti sa terapeutima. Napreduje u razvoju receptivnog i ekspresivnog govora, simbolizuje i smisljeno koristi slogove i reci, uz usklađene neverbalne gestove. Uči kroz imitaciju. Napredak pažnje se ogleda u kontinuitetu učestvovanja u aktivnostima. Počinje sa planiranjem i sekvenciranjem koraka i radnji zarad postizanja cilja. Sve manje prisutne stereotipne radnje i motorički manirizmi. Prema izveštaju psihijatra, nakon šest meseci rada isključena je paralelna dijagnoza autističnog spektra u opservaciji.

Zaključak

Tokom ove studije slučaja izveden je zaključak da rana intervencija muzikoterapijom ima značajan udeo u razvoju i adaptaciji opserviranih sposobnosti.

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Ključne reči: muzikoterapija, razvoj, autizam, stimulacija.

The importance of early music therapy intervention in autism spectrum disorder

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Theoretical background

The case study is based on a sample from the research (Roy Chaudhury & Ilić, 2018). It presents the progress made in social-emotional development (28%), sensory processing (21%), cognitive processing (24%), non-verbal communication (22%), attention (39%), and imitation (29%), which is reflected in the growth rate and statistically significant, positive, percentage-presented difference of arithmetic means based on score from paired t-tests. This research evaluated intervention strategies and techniques from the Nordoff-Robbins music therapy model (Pavličević, 2015) combined with Floortime therapy methods (Greenspan & Greenspan, 2010).

Aim

The case study aims to determine the importance of early intervention that consists of development stimulation of the child with Autism Spectrum Disorders (ASD).

Method

The entire sample consists of ten clients age 3-10 who are diagnosed with an ASD. The two evaluated periods were from February to June 2016 and from March to June 2017. During the first period, therapists who worked with the clients changed weekly. The therapist who did not interact with the client observed the process. An independent observer was introduced during the second period. The case study is based on annual reports from music therapists, psychologists, and psychiatrist and scores from the M-Chat-R questionnaire (Robins, Fein & Barton, 2009).

Results

A boy born in 2014 has a twin brother, and an older sister and brother. He lives with both parents. After a psychiatrist's suggestion, the boy started music therapy sessions in May 2016. He was diagnosed with a psychomotor developmental delay and ASD under observation. After starting the sessions, an actively directed attention deficit was noticed, followed by occasional sensory preoccupations. The boy partially learned the pointing gesture followed by short eye contact.

The absence of integration and modulation of sensory processes was noticed. After a year, the boy displayed progress in social-emotional relations when he started sharing the joy with therapists. He also displayed receptive and expressive language development and started to symbolize and meaningfully use syllables and words followed by non-verbal gestures. He learned through imitation. The attention development progress was visible in the boy's continuous part taking in various activities. He started planning and sequencing steps and actions to achieve his goals. Stereotypical actions and motor mannerisms are increasingly less present. According to a psychiatrist report, the parallel ASD under observation diagnosis was excluded after six months of therapy.

Conclusion

During this case study, it is concluded that early music therapy intervention has a significant role in the development and adaptation of observed abilities.

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Keywords: music therapy, development, autism, stimulation.

Uloga glazbe u terapiji djece s poremećajima iz spektra autizma: iskustva iz Hrvatske

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Teorijske osnove

Prema Bujas Petković i Frey Škrinjar (2010), autizam je pervazivan razvojni poremećaj koji počinje u djetinjstvu, traje cijeli život, a zahvaća gotovo sve psihičke funkcije. Osnovni su simptomima izostanak emocionalnih odgovora prema ljudima, nedostatak socijalne interakcije, otežana komunikacija, neobičnosti u ponašanju i stereotipije. Interes djece s poremećajima iz spektra autizma za glazbu, pozitivne reakcije na nju te učestalost vrlo razvijenoga glazbenog sluha u toj populaciji otvaraju put glazbenoterapijskim metodama kojima mogu razviti socijalne vještine i ostvariti zajedničke aktivnosti s vršnjacima.

Glazba je jedinstvena u tretiranju brojnih neuroloških problema jer angažira gotovo svako područje mozga (Hurt-Thaut, 2016). Terapije glazbom potiču neuroplastičnost mozga jačanjem veza koje kompenziraju nedostatke u njegovim oštećenim dijelovima. Slušanje glazbe poboljšava pamćenje i koordinaciju, a može pospješiti i razvoj drugih vještina, uključujući govor i motorne funkcije (Tomatis, Ferguson, & Campbell, 1992). Iako se na području Republike Hrvatske (RH) primjenjuju nekoliko desetljeća, ne postoji nijedna studija koja nudi pregled dostupnih terapija glazbom i njihova utjecaja na djecu s poremećajima iz spektra autizma.

Ciljevi

Cilj je ovoga diplomskog istraživanja na studiju glazbene pedagogije usporediti glazbenoterapijske prakse u RH-u te uočiti pomake u kognitivnim, motornim, socijalnim, komunikacijskim i emocionalnim kompetencijama kod djece s poremećajima iz spektra autizma. Usporedit ćemo pozitivne i negativne učinke terapije, uočiti pravilnosti te naznačiti pravce za daljnja istraživanja.

Metod

Ovo se kvalitativno istraživanje temelji na uspoređivanju rezultata dobivenih intervjuiranjem uživo petoro profesionalnih terapeuta iz RH-a s 15 do 20 godina iskustva u terapiji glazbom djece predškolske i osnovnoškolske dobi s poremećajima iz spektra autizma te jednim roditeljem desetogodišnjeg djeteta koje pati od istih poremećaja. Intervju se sastojao od dvadeset pitanja otvorenoga tipa koja obuhvaćaju profil ispitanika i djece s kojom rade, metode i pristupe, glazbu koju upotrebljavaju, ishode terapije te aspekte glazbene darovitosti kod tretirane djece.

Rezultati

U RH-u se provode različite individualne i grupne terapije glazbom za djecu s poremećajima iz spektra autizma od treće godine nadalje. Najbolji rezultati postižu se u dobi do sedam godina. Koriste se razne vrste glazbe, no preteže klasična instrumentalna te popularna glazba izraženog i pravilnog ritma. Terapija se može izvoditi kontinuirano ili u ciklusima s umetnutim pauzama za integraciju. Kod većine djece primjećuje se napredak na polju socijalnih kompetencija, kontrole i izražavanja emocija, mirniji san i bolje opće raspoloženje. Moguće su nuspojave hiperaktivnost, razdražljivost i napadaji panike, obično tijekom pauza, no te su pojave kratkotrajne, a nakon njih slijedi znatno poboljšanje općeg stanja.

Zaključci

Usprkos razlikama u metodama i pristupima, ispitani terapeuti većinom navode iste pozitivne ishode terapije glazbom kod djece s poremećajima iz spektra autizma. Nuspojave su rijetke i kratkotrajne, a poboljšanja uglavnom trajna ako se terapija kontinuirano provodi tijekom preoperacijskoga razvojnog razdoblja.

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Cljučne riječi: autizam, terapija glazbom, djeca, komunikacija, kognitivni razvoj, emocionalni razvoj, Hrvatska.

The role of music in the therapy of children with autism spectrum disorders (ASD): Experiences from Croatia

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Background

According to Bujas Petković and Frey Škrinjar (2010), autism is a pervasive developmental disorder beginning in childhood, lasting a lifetime and overtaking most psychical functions. The main symptoms are a lack of emotional response to people, difficulties with social interaction, communication disorders, unusual behaviour and stereotypies. The affected children's interest in music, positive reactions and frequency of highly developed musical hearing pave the way for therapeutic methods which can help them develop social competences and join their peers' activities. Music is a unique asset in handling neurological problems because it engages most areas of the brain (Hurt-Thaut, 2016). Therapies based on music foster brain neuroplasticity by strengthening connections which compensate for disadvantages in the damaged brain parts. Listening to music improves memory and coordination and can develop additional skills, including speech and motor functions (Tomatis, Ferguson, & Campbell, 1992). Although such therapeutic practices have existed in Croatia for decades, no comprehensive studies in the field have been undertaken so far.

Aims

This ongoing study for an MA degree in Music Pedagogy aims to compare different approaches to music therapy of children with ASD in Croatia and to examine their cognitive, motor, social, communication and emotional progress. We shall compare the positive and negative outcomes of different practices, find their mutual features and highlight directions for future research.

Method

This qualitative study is based on a comparison of interviews with five professional music therapists working in Croatia (average experience: 15 to 20 years), as well as one affected child's parent. The interview consisted of twenty open-ended questions which include profiles of the participants and children they work with, methods and approaches, the music they use, the outcomes of therapy and some aspects of musical giftedness of children with ASD.

Results

Various individual and group therapy programs for children aged 3 and older are conducted in Croatia. The best results are achieved by the age of 7. Therapists use different kinds of music, but classical instrumental music and popular music with a pronounced, regular rhythm prevail. Therapy is conducted either continuously or in cycles with intermissions for integration. Most children show progress in social competencies, control and expression of emotions, calmer sleep and better general mood. The negative side effects may include hyperactivity, irritability and panic attacks, usually during the intermissions, but those effects are short-term and followed by a substantial improvement in their general condition.

Conclusions

In spite of using different methods and approaches, most interviewed therapists quote similar positive outcomes of music therapy of children with ASD. Side effects are scarce and short-lived, whereas improvements are generally permanent if therapy is conducted during the preoperational developmental stage.

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Keywords: autism, music therapy, children, communication, cognitive development, emotional development, Croatia.

Muzička sposobnost i muzičke veštine dece sa poremećajima iz spektra autizma

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Teorijske osnove

Poremećaji iz spektra autizma (PSA) predstavljaju grupu celoživotnih neurobioloških poremećaja koji imaju snažan uticaj na kvalitet života individue (Jurišić, 2016). Osobe sa PSA imaju teškoće u komunikaciji, socijalnoj interakciji, imaginaciji i kognitivnoj fleksibilnosti (Hannah, 2009). Deca sa PSA imaju muzički potencijal koji se može razviti u jednakoj ili većoj meri u poređenju sa vršnjacima koji nemaju PSA (Heaton, 2009). Deci sa PSA muzika može predstavljati glavno polje interesovanja, kao i značajan faktor poboljšanja sposobnosti komunikacije i socijalne interakcije (Ockelford, 2018). Ova deca uglavnom imaju visoko razvijenu muzičku memoriju (Heaton, 2009), a njihova sposobnost izvođenja pojedinačnih tonova može biti čak i izraženija nego kod dece bez poremećaja (Applebaum, Egel, Koegel, & Imhoff, 1979).

Ciljevi

Cilj našeg istraživanja bio je da ispitamo muzičke kompetentnosti i sposobnosti kod dece sa PSA (Aspergerov sindrom i Kanerov autizam), kao i da ispitamo načine na koje oni usvajaju znanje muzike i muzičke teorije.

Metod

U istraživanju je učestvovalo 40 dece uzrasta 6 do 12 godina. Ispitanici su bili podeljeni u četiri grupe: (1) deca sa PSA koja pohađaju muzičku školu po metodi E. Vilems, (2) deca sa PSA koja ne pohađaju program muzičkog obrazovanja, (3) neurotipična deca koja pohađaju muzičku školu po metodi E. Vilems i (4) neurotipična deca koja pohađaju državnu muzičku školu. Za procenu muzičke kompetentnosti korišćen je audiometrijski test koji potiče iz pedagoške prakse E. Vilems, kao i standardizovani Gordonov test muzičke audijacije (Gordon, 1986). Istraživanje je dopunjeno dvema studijama slučaja osmogodišnjeg dečaka i devetogodišnje devojčice sa dijagnozom Aspergerovog sindroma, kod kojih smo sistematski posmatrali usvajanje muzičke teorije. Njih dvoje su jedina deca sa PSA, uzrasta 6 do 12 godina koja pohađaju grupne časove muzičke teorije.

Rezultati

Rezultati Gordonovog i Vilemsovog testa nisu ukazali na veće razlike u muzičkoj kompetentnosti i sposobnosti kod dece sa PSA koja pohađaju muzičku školu zasnovanu na Vilemsovoj metodi i neurotipične dece koja pohađaju istu školu. Takođe, deca bez PSA koja pohađaju muzičku školu zasnovanu na pedagogiji E. Vilems pokazala su višu muzičku kompetentnost u odnosu na decu koja pohađaju državnu muzičku školu. Pored toga, rezultati studije slučaja dva deteta sa Aspergerovim sindromom ukazuju na jedinstvene karakteristike usvajanja muzičkog znanja i veština, posebno na poljima imenovanja tonova, improvizacije, veze između pokreta tela i muzike, kao i veze između muzike i muzičkog teksta, gde su pokazali slabije sposobnosti u odnosu na svoje vršnjake. Sa druge strane, u domenu pamćenja melodija, imitacije, identifikacije visine tonova i prepoznavanja intervala, pokazali su izuzetnu sposobnost.

Zaključci

Deca sa PSA imaju jedinstvenu muzičku kompetentnost i sposobnosti. Njihove muzičke sposobnosti su uporedive sa sposobnostima njihovih neurotipičnih vršnjaka koji pohađaju muzičku školu po metodi E. Vilems. Dodatno, ova deca pokazuju više sposobnosti u domenu imitacije i pamćenja muzike.

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Ključne reči: poremećaji iz autističnog spektra, muzička kompetentnost i sposobnost, audacija, audiometrijski test.

Musical aptitude and musical skills of children with autism spectrum disorders

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Background

Autism spectrum disorders (ASD) are a group of neurobiological disorders that last a lifetime and have a strong impact on the quality of the affected individual's life (Jurišič, 2016). People with ASD have impairments in communication, social interaction, imagination and cognitive flexibility (Hannah, 2009). Children with ASD have music potential that can develop to the same or higher range in comparison with peers without the disorder (Heaton, 2009). For children with ASD, music can represent the main field of interest, and with its' help, they can achieve significant improvement in communication and social interactions (Ockelford, 2018). They have a highly developed music memory (Heaton, 2009) and their imitation of tones is on par or even exceeding those without the disorder (Applebaum, Egel, Koegel, & Imhoff, 1979).

Aims

The aim of our research is to examine musical aptitude of children with ASD (Asperger's syndrome and Kanner's autism) and to examine their ways of adopting musical knowledge and skills at music theory lessons.

Method

40 children, aged from 6 to 12 years old, participated in the research. They were divided into 4 groups: (1) children with ASD who attend music school based on the pedagogy of E. Willems, (2) children with ASD who do not attend any music educational program, (3) neurotypical children who attend music school based on the pedagogy of E. Willems and (4) neurotypical children who attend public music school. We used an audiometric test, that originates in Willems pedagogy, and standardized Gordon's test of musical audiation to assess their musical aptitude (Gordon, 1986). The research was complemented by 2 case studies of an 8-year old boy and 9-year old girl, diagnosed with Asperger's syndrome, in whom we systematically observed their adoption of musical knowledge and skills at music theory lessons. They are the only children with ASD (6 to 12 years old) who attend group music theory lessons.

Results

The results of Gordon's and Willem's tests have not shown greater differences in musical aptitude in children with ASD who attend music school based on the pedagogy of E. Willems and neurotypical children who attend the same music education system. Also, children with and without ASD who attend music school based on the pedagogy of E. Willems have shown better musical aptitude than children who attend a public music education system. Furthermore, the results of case studies of two children with Asperger's syndrome have shown unique features in adopting musical knowledge and skills, especially in the area of naming tones, improvisation, links between body movement and music, as well as links between music and musical text, where they showed lower abilities than their peers. In contrast, they presented exceptional musical abilities in the area of memorizing melodies, imitation, pitch identifying and recognizing intervals.

Conclusions

Children with ASD possess the unique musical aptitude and musical skills. Their musical abilities are comparable with their neurotypical peers who attend music school based on the pedagogy of E. Willems, furthermore, they show higher abilities regarding imitation and memorizing music.

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Keywords: autism spectrum disorders, musical aptitude and skills, audiation, audiometric test.

'Momenti bivanja' – muzikoterapija sa teško onesposobljenom decom i mladima

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Teorijske osnove

Muzikoterapija sa ljudima sa teškom onesposobljenošću ima dugu tradiciju (u Evropi je prisutna od 1960. godine), ali je retko evaluirana. Posebno rad sa mladima nije često pomenut u literaturi (Pavličević, O'Neil, Powell, Jones, & Sampathianaki, 2014). Muzikoterapija po definiciji predstavlja „upotrebu muzike i/ili muzičkih elemenata, od strane kvalifikovanog muzikoterapeuta, sa pojedincem ili grupom, u procesu osmišljenom tako da olakša i ohrabri komunikaciju, uspostavljanje međuljudskih odnosa, učenje, mobilizaciju, izražavanje, organizaciju i ostale relevantne terapijske ciljeve, zarad zadovoljavanja fizičkih, emotivnih, socijalnih i kognitivnih potreba“ (WFMT, 1997). Ne postoji jasno određenje definicije pojma *teškog invaliditeta* (Draper, 2019) i često se koriste termini kao što su *višestruka onesposobljenost* ili *duboka onesposobljenost*. Ovi termini odnose se na osobu kojoj je neophodna intenzivna pomoć i podrška u različitim aspektima životnog funkcionisanja.

Iako se često smatra da su osobe sa teškim invaliditetom sposobne jedino za slušanje muzike, muzikoterapeuti koriste pristup aktivnog stvaranja muzike sa klijentima, čak i kada su oni veoma ograničenih sposobnosti. Upravo interpersonalno muzičko iskustvo dovodi do velikog efekta. Kao što Addessi, Bonfiglioli i Clough (2016: 114) navode, „snažna veza između muzičkog iskustva, dobrobiti i razvoja, nedavno je pokazana u istraživanjima kognitivnih nauka i neuro-nauka.“ Pored nekoliko malih studija efektivnosti muzikoterapije sa decom i mladima sa teškim invaliditetom (Stephenson, 2006; Reimer, 2016) i dalje ne postoji dovoljan broj dokaza, te su i dalja istraživanja neophodna. Uprkos tome, većina ovih studija pokazuje povećanje responzivnosti i kvaliteta socijalne interakcije kod klijenata koji su učestvovali u procesu muzikoterapije u dužem vremenskom periodu, kao i povećanje opsega mogućnosti za regulaciju afekta (Reimer, 2016) i iskazivanje emocionalnih stanja (Watson, 2014).

Ciljevi

Cilj autorka je da predstavi specifično područje terapijske primene muzike u cilju psihološke dobrobiti dece i mladih sa teškom onesposobljenošću. Jedna od glavnih vrednosti rada, koje će autorka prezentovati, jeste razvoj alternativnih načina interakcije, koji bi omogućili interpersonalni kontakt, kako bi deca ili mlade osobe doživele snažno iskustvo razumevanja (Wigram, 1988).

Metod

Kroz prikaz osnovnih teorija razvojne psihologije i specifičnih kapaciteta muzike u terapijskom procesu, autorka će predstaviti studiju slučaja jedanaestogodišnje devojčice sa teškom, višestrukom onesposobljenošću. Uz pomoć video materijala prikazaće specijalne ‚momente‘ sa muzikoterapijskih seansi.

Rezultati

Autorka želi da ukaže na veliki značaj retkih iskustava za mnoge ljude sa teškom onesposobljenošću u muzikoterapiji. Iskustvo ‚biti‘: biti ovde, biti u mogućnosti da te čuju, biti povezan, biti aktivan, biti u mogućnosti da te drugi razumeju.

Zaključci

Pod pretpostavkom da teška onesposobljenost utiče na osobu na kompleksan način, muzikoterapija pruža različite mogućnosti za odgovaranje na njihove potrebe koristeći holistički pristup.

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Ključne reči: muzikoterapija, teška onesposobljenost, muzičko iskustvo, psihološka dobrobit.

'Moments of being' – music therapy with children and youth with severe disabilities

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Background

Music therapy with people with severe disabilities has a long tradition (in Europe since the 1960th) but is rarely evaluated. Especially the work with youth is hardly ever mentioned in the literature (Pavličević, O'Neil, Powell, Jones, & Sampathianaki, 2014). Music therapy is by definition “the use of music and/or musical elements by a qualified music therapist, with a client or group, in a process designed to facilitate and promote communication, relationships, learning, mobilization, expression, organization, and other relevant therapeutic objectives, in order to meet physical, emotional, mental, social and cognitive needs” (WFMT, 1997). There is no agreed-upon definition for the term *severe disability* (Draper, 2019) and it is often used similar to the terms *multiple disability* and *profound disability*. Commonly these terms describe a person, who needs intensive support in different areas of functioning.

Although it is often thought people with severe disabilities are able just to listen to music, music therapists use active music-making with their clients, even if they have very limited possibilities. It is the interpersonal musical experience which has a great effect. As Addressi, Bonfiglioli and Clough (2016, pp. 114) point out, “the close relationship between musical experience, well-

being and development has been recently highlighted by the cognitive sciences and neuroscience.” Besides some small studies on the effectiveness of music therapy with children and youth with severe disabilities (Stephenson, 2006; Reimer, 2016), there is still very little evidence and further studies are needed. Nevertheless, mostly these studies show an increase in responsiveness and social interaction for clients, that have received music therapy for a longer period of time, as well as a wider range of possibilities for affect-regulation (Reimer, 2016) and communication of emotional states (Watson, 2014).

Aims

The author aims to present a specific area of the therapeutic use of music to promote the psychological well-being of children and youth with severe disabilities. The main values of such a work, as presented by the author, are the development of alternative means of interaction, enabling interpersonal contact and providing the child or youngster with the profound experience of being understood (Wigram, 1988).

Method

Pointing out some basic theories of developmental psychology and specific capacities of music in the therapeutic process, the author will present a single case-study with an 11-years old girl with severe, multiple disabilities. Video examples of special ‘moments’ in her music therapy sessions underline her statements.

Results

The author wants to communicate the very importance of the rare experience for many people with severe disabilities in music therapy. The experience to ‘be’: Being here, being heard, being connected, being active, being understood.

Conclusion

Assuming that severe disabilities affect a person in a complex way, music therapy provides possibilities to meet the needs within a holistic approach.

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Keywords: music therapy, severe disability, musical experience, psychological well-being.

Tematska sesija 3
MUZIČKA PERCEPCIJA I KOGNICIJA

Thematic Session 3
MUSIC PERCEPTION AND COGNITION

Moć dugih nota: pedal, dron i teorije očekivanja

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Teorijske osnove

Pedal (ili dron) je prisutan skoro u svim muzičkim stilovima. Iako je njegova pojavnost u većini partitura slična, njegovo dejstvo na slušaoca može biti veoma različito. Dok neki pedali stvaraju tenziju, drugi mogu imati gotovo suprotan efekat, kao što je održavanje stabilnog pulsa ili intonacije. Uoporedimo na primer pastoralni dron iz Betovenove šeste simfonije sa pedalnom osnovom Debisijevog *Voiles* ili harmonskim pedalom koji prati fugu Bramsovog *Nemačkog rekvijema*. Ovo obilje varijanti retko se reflektuje u muzičkoj analizi: pedalni ton je obično opisan podacima o njegovoj tonskoj visini, trajanju i harmonskoj funkciji. Mogući razlog ovakvog nesklada je nedovoljna razvijenost teorijskog rečnika, nedostatak koncepata koji bi mogli pomoći u razumevanju potencijalne snage dugih nota.

Moja osnovna pretpostavka je da muzička očekivanja u ovome imaju važnu ulogu. Kao konceptualni okvir istraživanja uzete su teorije Mejera (Meyer, 1956), Margulis (Margulis, 2005) i Levina (Lewin, 1986), koje objašnjavaju na koji način muzička očekivanja utiču na percepciju muzike. Ova perspektiva se pokazala plodonosnom jer je ukazala na potencijal dugih tonova da izazovu očekivanje drugih muzičkih elemenata (na primer, očekivanje povratka početne harmonije ili prekidanja samog pedalnog tona).

Ciljevi

Cilj ovog istraživanja je razumevanje efekata različitih pedalnih tonova. Kroz ovu prezentaciju predstaviti načine na koje je muzičko očekivanje ugrađeno u percepciju dugih tonova i načine na koje ova percepcija utiče na percepciju drugih muzičkih parametara.

Glavni doprinos

Zaključci istraživanja pokazuju da je jedan od najuticajnijih faktora u percepciji dugih tonova mera očekivanja koju ti tonovi stvaraju (drugi uticajni faktor je njihova zvučnost). Pedal koji pobuđuje jako očekivanje može čak i potpuno nestati iz dinamičkog opsega čujnosti (*fade out*), a da, uprkos tome, i dalje utiče na rast tenzije. Pedal koji ne proizvodi jako očekivanje može biti percipiran kao jedan od slojeva tekstone – dron.

Pored direktnog očekivanja (kao što je, na primer, očekivanje harmonskog razrešenja), duge note mogu pobuđivati očekivanja vezana za muzičku strukturu (na primer, dugi pedal na dominantni često 'najavljuje' povratak glavne teme).

Ovo istraživanje pruža perspektivu iz koje se efekat dugih tonova može bolje razumeti. Ono takođe obezbeđuje novi rečnik za opisivanje karaktera pedalnog tona. U svrhu generalne diferencijacije koncept pedal može najpre biti raščlanjen na varijante *harmonski proces* (za koji se može koristiti termin *pedal*) i *zvučni element* (za koji se može koristiti termin *dron*), u okviru kojih je moguće definisati više specifičnih tipova (paterna) koje često srećemo u muzici različitih stilova.

Implikacije

Predložena perspektiva naglašava značaj slušne analize i ulogu percepcije u diskursu teorije muzike. Iz ove perspektive analiza se odvija u dva smera istovremeno, pri čemu su muzički elementi iz prošlosti i muzički elementi koji su očekivani u budućnosti zajedno integrisani u razumevanje sadašnjeg muzičkog trenutka.

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Ključne reči: pedal, dron, teorije očekivanja, percepcija muzike, muzička analiza.

The power of long notes: Pedal point, drone, and expectancy theories

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Background

Pedal points and drones are present in almost all musical genres and styles. Their appearances in a score are similar, but their effects on the listener can be very diverse. While some can raise enormous tension, others have an opposite effect, for instance, providing a metrical or pitch anchor. Compare, for example, the folk drones in Beethoven's 6th symphony to the pedal point of Debussy's *Voiles* or the harmonic pedal under the fugue of Brahms' *Ein Deutsches Requiem*. This variety is rarely reflected in music analysis: often a pedal point (or drone) is described merely by specifying its pitch, duration, and harmonic function (if applicable). A possible reason could be that there are no defined concepts that provide a vocabulary to describe and understand the power of long notes.

Aims

My research aims at understanding the 'working' of different pedals/drones. My hypothesis is that listeners' musical expectations play an important role. As a conceptual frame, I have taken the writings of Leonard B. Meyer (1956), Elizabeth H. Margulis (2005), and David Lewin (1986), who all examine how musical expectation influences the perception of music. This perspective proves to be fruitful, as it sheds light on the potential of long notes to raise expectations of other musical events (for example, the expectation of the return of the initial harmony, or the termination of the pedal tone).

The expectancy rate seems to be one of the most influential parameters in the perception of long tones (another is their sonority). A pedal point with a high expectancy rate can even vanish into inaudibility, while still keeping its tension. A pedal point with a low expectancy rate might be perceived as a layer in the overall texture, a drone.

Next to very direct expectations, such as the resolution or termination of a harmonic pedal, a long note has the potential to incite an expectation related to musical structure (for example, a long dominant-pedal can announce the return of the main theme).

My presentation outlines the ways in which expectation is a built-in perception of long notes, and the ways in which this perception influences the perception of other musical parameters.

Main Contribution

This work provides a perspective to understand the effect of a pedal/drone, and a vocabulary to describe its character. I propose a general differentiation of long tones into harmonic processes

(referred to with the term *pedal*) and sonorous elements (referred to as *drone*), and, within these two categories, several more specific types (pedal/drone patterns).

Implications

This presentation emphasizes the listeners' perspective and the role of perception in music theoretical discourse. It promotes a two-directional temporal analysis, where musical events from the past and expected events in the future are integrated into the understanding of present musical moments.

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Keywords: pedal, drone, expectancy theories, music perception, music analysis.

Vrh ledenog brega: redefinisanje apsolutnog sluha iz vizure sinestezije

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Teorijske osnove

Sinestezija i apsolutni sluh (AS) dva su neuobičajena kognitivna stanja koja reflektuju pojačane neuronske veze i koje se retko javljaju zajedno kod pojedinaca. Ono što oba stanja zahtevaju jesu nevoljno i stabilno mapiranje između perceptivnih i verbalnih reprezentacija. Međutim, sistematsko poređenje ova dva stanja tek treba da se preduzme.

Ciljevi

Istražuje se poređenje fenomenoloških karakteristika oba stanja, kao i povezanost sa različitim etiološkim modelima, sa ciljem da se usmeri na dva ključna pitanja: Da li je fenomenologija i etiologija sinestezije i AS uporediva i, ako jeste, u kojoj meri je uporediva? Da li postoji prilika da se evocira mogućnost integrisanog, jedinstvenog fenomena?

Metod

Ova komparativna analiza oslanja se na formiranu literaturu o fenomenologiji i etiologiji oba stanja, dok će i novi uvidi o sinesteziji i AP osobama prikupljeni tokom autorkinih doktorskih akademskih studija takođe biti navedeni. Ispitanici prikupljeni za ovu studiju ($N = 35$) čini samo-identifikovani uzorak studenata muzike i zaposlenih na Konzervatorijumu za muziku u Melburnu, na Univerzitetu u Melburnu. U ovoj studiji su korišćena tri vida prikupljanja podataka: *online* upitnik, polu-strukturirani intervju i baterija testova koja meri sinesteziju i AS.

Rezultati

Fenomenološko poređenje sinestezije i apsolutnog sluha otkriva više sličnosti nego razlika. To je u suprotnosti sa načinom na koji su oba stanja obično predstavljena u literaturi. Kvalitativni podaci dobijeni kroz intervju u studijama slučaja, pokazuju da samoprocene AS osoba obično korespondiraju dijagnostičkim kriterijumima za tonsku visinu → prostornu lokaciju, tonsku visinu → taktilnu senzaciju, ili modifikovanoj (slušnoj) formi lingvistički personifikovanih tipova sinestezije. Pregled savremenih etioloških modela za oba stanja, analogno tome, otkriva upečatljive zajedničke karakteristike oba stanja (Gregersen, Kowalsky, Lee, Baron-Cohen, Fisher, Asher, & Li, 2013; Hänggi, Beeli, Oechslin, & Jäncke, 2008; Loui, Zamm, & Schlaug, 2012; Mottron et al., 2013; Ward, Huckstep, & Tsakanikos, 2006).

Zaključci

Zaključci impliciraju šire razumevanje specifičnih karakteristika sinestezije i apsolutnog sluha. Isticanje 'zamagljenih', ali mnogo većih i posledičnih uticaja sinestezije i AS, kao što su lični odnosi i bitna povezanost sa pojedinačnim tonalitetima, omogućava dublje razumevanje uticaja ovih stanja na kognitivni i afektivni pristup muzici.

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Ključne reči: sinestezija, apsolutni sluh, percepcija, kognitivno stanje, multičulne imaginacije.

The tip of the iceberg: Redefining absolute pitch through the lens of synaesthesia

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Background

Synaesthesia and absolute pitch (AP) are two uncommon cognitive conditions that reflect increased neuronal connectivity and have been anecdotally reported to occur together in individuals. What both conditions require are involuntary and stable mappings between perceptual and verbal representations. A systematic comparison of the two conditions, however, has yet to be undertaken.

Aims

A comparison of the phenomenological features of both conditions and their relation to different etiological models is explored, with the aim of addressing two key questions: Are the phenomenology and aetiology of synaesthesia and AP comparable, and if so, to what extent? Is there the opportunity to evoke the possibility of an integrated, singular phenomenon?

Method

This comparative analysis draws from established literature on the phenomenology and aetiology of both conditions, while new insights from synaesthetes and AP possessors collected during the author's Ph.D. studies will also be referenced. Participants recruited for this study ($N = 35$) comprise a self-identified sample across music students and staff of the Melbourne Conservatorium of Music, University of Melbourne. Three forms of data collection were used for this study: an online questionnaire, semi-structured interviews, and synaesthesia and AP battery tests.

Results

A phenomenological comparison of synaesthesia and AP reveals more similarities than differences. This is in contrast to how both conditions are commonly represented in the literature. Qualitative data obtained through case-study interviews demonstrate that the self-reports of AP possessors commonly match the diagnostic criteria for pitch → spatial location, pitch → tactile sensation, or a modified (aural) form of ordinal linguistic personification types of synaesthesia.

A review of contemporary aetiological models of both conditions analogously reveals striking commonalities between both conditions (Gregersen, Kowalsky, Lee, Baron-Cohen, Fisher, Asher, & Li, 2013; Hänggi, Beeli, Oechslin, & Jäncke, 2008; Loui, Zamm, & Schlaug, 2012; Mottron et al., 2013; Ward, Huckstep, & Tsakanikos, 2006).

Conclusions

The findings have implications for broader understandings of the specific features of synaesthesia and AP. Emphasizing the ‘submerged’, but much larger and consequential influences of synaesthesia and AP, such as the personal relationship and deep engagement with individual tonalities, enables a more profound understanding of the impact of these conditions on the cognitive and affective processing of music.

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Keywords: Synaesthesia, absolute pitch, perception, cognitive condition, multisensory imagery.

Sintetizujuća sinestezija: algoritamski pristupi auditivno indukovanoj vizualnoj sinesteziji u virtualnim realnostima

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Teorijske osnove

U najboljem slučaju, virtualne i proširene realnosti (VR i PR) angažuju, pobuđuju i zahtevaju višestruku, istovremenu pažnju čula kako bi stvorile upečatljiva stimulaturna okruženja koja su dizajnirana isključivo za ljudsku interakciju. Kao takve, VR i PR predstavljaju značajne platforme za istraživanje auditivno-indukovane sinestezije: oslobođene ograničenja fizičkog sveta i potrebe da se repliciraju funkcije i senzacije čulnih znakova unutar njega, VR i PR mogu biti posebno osmišljene kako bi se kreirala živa, produbljena, mnogostruka i unakrsna čulna iskustva koja inače ne bi bila moguća.

Ciljevi

Cilj prezentacije je da se istraže potencijali VR i PR u stvaranju novih okruženja koja kroz interaktivnu igru korisnicima omogućavaju da dožive unakrsnu čulnu percepciju koja je tipična za određene tipove sinestezije. Poseban fokus istraživanja je usmeren na forme sinestezije zvuk-boja, kada određeni zvukovi nevoljno izazivaju odgovarajuće boje.

Metod

Ova prezentacija prvenstveno predstavlja rezultate obimnog pregleda literature i medija i nastoji da postavi trenutni rad u okviru šireg intelektualnog, kulturnog i proizvodnog konteksta. Započinjemo pregledom istorije sinestetičkog dizajna u vizualizaciji muzike, video igrama i VR i analizom postojećih komercijalnih i eksperimentalnih digitalnih praksi, koje nastoje da simuliraju efekte sinestezije. Na primer, aplikacija *Sinestezija VR* [eng. *Synaesthesia VR*] za iOS i Android predstavlja pristupačnu interaktivnu VR aplikaciju za mobilne uređaje. Ona je zasnovana na iskustvu četvorice sinesteta i obezbeđuje korisnu studiju slučaja za metodologiju dizajna i modelovanje individualnog čulnog iskustva u virtuelnom prostoru.

Istražujemo, takođe, od strane kritike priznate multi platformne video igre Tetsuija Mizugušija *Rez* i *Dete raja*. U ovim video igrama su interfejs i tehnika igranja izgrađeni na sinestezijskim efektima kako bi se kreirala duboka, multičulna iskustva igranja, te demonstriralo kako sinestezija može da obezbedi opštu osnovu za dizajniranje interfejsa koji poboljšavaju performanse korisnika i u drugim domenima, kao što su muzička produkcija i izvođenje. Postoji sve veći broj istraživanja koja pokazuju da se ljudi snalaze bolje u virtualnoj realnosti kada je korisničko iskustvo dizajnirano na mnogostrukim čulnim imputima, ali je mali broj onih koji eksperimentalno dokazuju i određuju uslove pod kojima takvi povezani, multimodalni interfejsi stvaraju optimizovani tok iskustva.

Rezultati

Dok su pojedinačna sintetička mapiranja izrazito idiosinkratična, za sinestete su indukovane percepcije nevoljne, automatske, celovite i perceptivno jedinstvene. Uprkos ovoj očiglednoj heterogenosti, stabilnost ovih perceptivnih podudarnosti sugerise jedan algoritamski pristup, onaj u kome su vizualni i auditivni izlazi generativno povezani ili kreirani od istovetnog osnovnog skupa podataka korišćenjem samo jednog algoritamskog procesa. Sve ovo može da obezbedi jedan opšti mehanizam za sintezu i sistematsko istraživanje sinestezijskog iskustva virtualne realnosti.

Zaključci

Ispitivaćemo opseg u kome sintetizirana iskustva VR i PR nude istraživačima mogućnost sistemskog istraživanja audio-vizualne sinestezije. Diskutovaćemo o tome kako retki oblici sinestezije, kao na primer audio-taktilna sinestezija, u kojoj zvukovi izazivaju taktilne senzacije, mogu da budu efikasno modelovani u području VR i AR. Razmatraćemo kako novi oblici interfejsa mogu da nađu svoju širu primenu, na primer, u kreiraju izražajnijih muzičkih interfejsa za virtualne digitalne muzičke instrumente.

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Ključne reči: sinestezija, vizualizacija, algoritamsko generisanje, virtualna realnosti, multičulne slike.

Synthesizing synaesthesia: Algorithmic approaches to auditory-induced visual synaesthesia in virtual realities

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Background

At their best, Virtual and Augmented Realities (VR and AR respectively) engage, excite and demand the attention of multiple senses simultaneously to create compelling simulated environments that are designed expressly for human interaction. As such, they represent significant platforms for exploring auditory-induced synaesthesia: freed from the constraints of the physical world and the need to replicate the function and sensation of sensory cues within it, virtual and augmented realities can be designed specifically to create vivid, immersive multi- and cross-sensory experiences that would not otherwise be possible.

Aims

This presentation explores the potential of VR and AR to create new environments that allow users, through interactive play, to experience the sort of cross-sensory perception that is typical of certain types of synaesthesia. A particular focus of this exploration is placed on forms of sound-colour synaesthesia in which specific sounds induce involuntary colour concurrents.

Method

This presentation primarily presents the results of literature- and media-based scoping exercise, and it is intended to situate current work within a broader intellectual, cultural and production context. We begin by presenting an overview of the history of synaesthetic design in music vi-

sualisation, video gaming and virtual reality, and an analysis of existing commercial and experimental digital work that attempts to simulate the effects of synaesthesia. The iOS and Android app *Synaesthesia VR*, for example, creates an accessible interactive VR application for mobile devices based on the experience of four synaesthetes, and provides a useful case study for the modelling of individual sensory experience in virtual space as a design methodology.

We also explore Tetsuya Mizuguchi's critically-acclaimed multi-platform video games, *Rez* and *Child of Eden*, which build the interface and mechanics of play around synaesthesia-like effects to create deep, multisensory game-playing experiences, and demonstrate how synaesthesia might provide a platform for generalised interface design that enhances user performance in other domains, such as music production and performance. There is a growing body of research to suggest that people perform better in VR when the user experience is designed around multisensory input, but little in the way of experimental evidence to determine the conditions under which such linked multi-modal interfaces might create optimised flow experiences.

Results

While individual synaesthetic mappings are highly idiosyncratic, for synaesthetes the induced percepts are involuntary, automatic, consistent and perceptually genuine. Despite this apparent phenomenal heterogeneity, the stability of these perceptual correspondences suggests that an algorithmic approach, one in which visual and auditory outputs are either generatively linked or are created procedurally from a common underlying data set using a single algorithmic process, may provide a robust mechanism for synthesizing and systematically exploring synaesthetic experiences in VR.

Conclusions

We will examine the scope that synthesised VR and AR experiences offer researchers for the systematic study of sound-colour synaesthesia, and finally, we will discuss how rarer forms of synaesthesia, such as auditory-tactile synaesthesia, in which sounds induce tactile sensations, might be modelled effectively in VR/AR, and how these new modes of interface may have broader applications, for example, in creating more expressive musical interfaces for virtual and digital musical instruments.

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Keywords: synaesthesia, visualisation, algorithmic generation, virtual reality, multisensory imagery.

Metodološke poteškoće u zadacima konzervacijskog tipa u muzici

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Teorijske osnove

Muzička konzervacija predstavlja sposobnost da se, uprkos promeni jednog atributa muzike, ostali atributi percipiraju kao nepromenjeni. Većina pojmova u Pijažeovoj teoriji konzervacije može se preneti na muzički razvoj, ali analogija samih zadataka ostaje upitna. Zimmermanova je izdvojila nekoliko principa konzervacije u muzici (Radoš, 2010), a rezultati prvih istraživanja pokazali su da se uspešnost konzervacije muzike povećava sa uzrastom i da se tonski obrasci konzerviraju pre ritmičkih. Usledile su brojne kritike (Botvin, 1974, prema Zimmerman, 1986; Hildebrandt, 1987, prema Radoš, 2010; Serafine, 1975), koje možemo podeliti u nekoliko grupa: 1) odabir zadataka (identitet-transformacija, kompenzacija, reverzibilnost); 2) priroda stimulusa (prepoznatljivost melodije, trajanje, preplitanje čulnih domena); 3) način zadavanja (pojmovne nejasnoće); 4) problem uzrasta. U skorijem pilot istraživanju (Vuletić & Jegdić, 2017) osmišljeni su novi zadaci i razmotreni sledeći metodološki problemi: ukupno trajanje, isključivo auditivni domen, prilagođenost terminologije uzrastu i neprepoznatljivost stimulusa. Rezultati upućuju na to da se ritmički obrasci konzerviraju pre tonških i da postoje: a) deca koja nisu rešila nijedan Pijaževov zadatak, a jesu bar jedan muzički; b) deca koja rešavaju sve Pijažeove zadatke, ali ne i sve zadatke muzičke konzervacije.

Ciljevi

Jedan od ciljeva ovog rada jeste predstavljanje rezultata navedenog pilot istraživanja, u kojem su pojedine kritike prevaziđene. Glavni cilj jeste razmatranje postojećih metodoloških poteškoća koje se javljaju prilikom osmišljavanja i administracije zadataka, što može doprineti širenju i redefinisanju teorijskih konstrukata.

Značaj

Navedena istraživanja produbljuju problem validnosti zadataka konzervacijskog tipa u muzici, ali u proteklih dvadeset godina nije bilo značajnijih radova u ovoj oblasti. Stoga, trebalo bi uzeti u obzir pomenute kritike i osmisлити *metodološki korektnije zadatke*. Značaj ovog istraživanja ogleda se u doprinosu validaciji zadataka, kao i boljem razumevanju prirode muzičkog razvoja.

Implikacije

U navedenom pilot istraživanju uzeti su u obzir pojedini metodološki problemi iz pomenutih kategorija, a rezultati ukazuju u kom pravcu treba usavršavati zadatke. Čini se da su metodološke poteškoće razlog dobijanja oprečnih rezultata i da bi bilo značajno sprovesti istraživanja na većem uzorku i sa preciznijom kontrolom varijabli.

Radoš (2010) naglašava da su kognitivne teorije muzičkog razvoja važne za planiranje adekvatnog programa muzičkog obrazovanja. S obzirom na značaj aspekta konzervacije za razumevanje razvoja kognitivno-muzičkih sposobnosti, trebalo bi nastaviti sa rešavanjem metodoloških nedoumica i ispitivanjem odnosa Pijažeove i muzičke konzervacije.

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Ključne reči: metodologija, konzervacija, muzika, Pijaže, obrazovanje.

Methodological difficulties in conservation-type tasks in music

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Background

Music conservation represents the ability to perceive unchanged attributes of the music as same, despite the change in another attribute. Most concepts in Piaget's conservation theory apply to musical development, but the analogy of the tasks remains questionable. Zimmerman abstracted several principles of music conservation (Radoš, 2010). Results have shown that the efficiency of music conservation increases with age and tonal models conserve before rhythmic. Numerous critics followed (Botvin, 1974, in Zimmerman, 1986; Hildebrandt, 1987, in Radoš, 2010; Serafine, 1975), which can be arranged into several groups: 1) task selection (identity-transformation, compensation, reversibility); 2) the nature of the stimuli (familiarity with the melody, duration, sensory domains interfering); 3) test procedure (terminology); 4) age problem. In the pilot study (Vuletić & Jegdić, 2017) following methodological problems have been considered: duration, sole auditory domain, terminology adjustment to the age and unfamiliarity with the stimuli. Results point to the earlier conservation of rhythmic over tonic patterns and there were: a) children who haven't solved any Piaget's task but managed to solve at least one musical tasks; b) children who have solved all Piaget's tasks, but not one musical task.

Aims

The aim is to present the results of the mentioned pilot study, in which some of the criticisms have been exceeded. The main goal is to review remaining methodological difficulties that arise while designing and administrating the tasks, thus contribute to the expansion and redefinition of theoretical constructs.

Significance

Cited studies deepen the validity problem in conservation-type music tasks, but recently there has been no significant research in this field. Therefore, mentioned critiques should be considered and *methodologically more correct tasks* designed. The significance of this research reflects the contribution to tasks validation and a better understanding of musical development.

Implications

In this pilot study, some methodological problems have been considered and results indicate in which direction tasks need to be perfected. Methodological difficulties might be the reason for obtaining contradictory results and it would be significant to conduct research with larger sample and precise control of the variables.

Radoš (2010) emphasizes the importance of cognitive theories in musical development for planning adequate education program. Considering the value of conservation aspect for understanding cognitive-musical abilities, solving methodological problems, and examining the relationship between Piaget's and music conservation, should continue.

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Keywords: methodology, conservation, music, Piaget, education.

Povezanost metakognitivnih strategija čitanja sa lista i ažuriranja radne memorije merenog pomoću zadatka 3-unazad

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Teorijske osnove

U toku poslednjih nekoliko godina, čitanje sa lista je jedna od najcitiranijih istraživačkih tema u kognitivnoj psihologiji muzike. Kao kognitivna aktivnost, čitanje sa lista se može konceptualizovati kroz model samoregulisanog učenja sa fazama pripreme, postavljanja ciljeva, izvođenja, nadgledanja i evaluacije. Ažuriranje radne memorije (RM), kao jedne od tri egzekutivne funkcije (Miyake et al, 2000), predstavlja konstantno nadgledanje i revidiranje nadolazećih informacija u RM, tako da se irelevantan sadržaj ,briše', a relevantan zadržava u RM. U toku čitanja sa lista, kao ,online' aktivnosti, muzičari konstantno ažuriraju informacije u vezi sa izvršavanjem zadatka i očekivanjima o nadolazećem muzičkom sadržaju sa ciljem da održe fluentnost i preciznost u izvođenju, bez prekidanja muzičkog toka. Postoje nalazi koji potvrđuju da su muzičari u odnosu na opštu populaciju uspešniji na zadacima ažuriranja RM (Oechslin, Van De Ville, Lazeyras, Hauert, & James, 2012; Pallasen et al., 2010). Ipak, izostaju nalazi o relacijama između ažuriranja RM sa jedne strane i uspešnosti i strategijama pri čitanju sa lista, sa druge strane.

Ciljevi

Ova studija je sprovedena kako bi se ispitala veze između strategija čitanja sa lista korišćenih u različitim fazama aktivnosti i uspešnosti u ažuriranju RM.

Metod

Uzorak se sastojao od 84 studenata Fakulteta muzičke umetnosti (82% devojaka). Dve verzije 3-unazad (verbalni i spacijalni) zadatka su zadate ispitanicima sa svrhom merenja ažuriranja RM. Ispitanici su popunili upitnik samoprocene čitanja sa lista za pijaniste (Bogunović, 2017) kojim se dobijaju skorovi za različite strategije u okviru šest faza čitanja sa lista (80 stavki, peto-stepene Likertove skale): 1. Priprema (analitičnost, unutrašnji sluh, opšti pregled); 2. Postavljanje ciljeva (interpretacija, tehnički, bez ciljeva); 3. Izvođenje (ekspertiza, fleksibilnost, vizuelnost, kontrola kontinuiteta); 4. Poteškoće pri sviranju (harmonijska i strukturalna složenost, ,čitljivost' muzičke notacije, poteškoće u vezi sa ritmom i tempom); 5. Lakoća pri sviranju (transparentnost muzičke strukture, opažanje melodijsko-ritmičkih obrazaca, jednostavna harmonija); 6. Rešavanje problema (analitičko, neefikasno). Upitnik je sadržao i pitanja samoprocene generalne sposobnosti čitanja sa liste i stepena uživanja u ovoj aktivnosti.

Rezultati

Dve verzije zadatka 3-unazad su međusobno značajno korelirale ($r = .604, p = .000$), dok su između ažuriranja i čitanja sa lista dobijene tri značajne korelacije. Spacijalna verzija zadatka 3-unazad je bila pozitivno povezana sa samoprocenom sposobnosti čitanja sa lista ($r = .268, p = .015$) a negativno sa stepenom doživljavanja poteškoća u vezi sa ,čitljivošću' muzičke notacije u toku sviranja ($r = -.230, p = .039$) i poteškoća u vezi sa ritmom i tempom ($r = -.228, p = .040$). Nisu dobijene značajne korelacije između preostalih mera čitanja sa lista i ažuriranja RM.

Zaključci

Rezultati upućuju na to da su poteškoće pri čitanju sa lista povezane sa lošijim učinkom na zadacima ažuriranja RM u neverbalnom domenu. U budućim studijama bi kao mere trebalo dodati i procene eksperata u vezi sa izvođenjem čitanja sa lista i ispitati potencijalne kauzalne veze između niske sposobnosti ažuriranja RM i stepena samoprocenjenih poteškoća pri čitanju sa lista.

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Ključne reči: čitanje sa lista, egzekutivne funkcije, ažuriranje, metakognitivne strategije, radna memorija.

Relations between metacognitive strategies in sight-reading and working memory updating measured by 3-back task

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Background

Over the last few years, sight-reading emerged as one of the top-cited research topics in cognitive psychology of music. As a cognitive activity, sight-reading can be conceptualized through the model of self-regulative learning, up to and including phases of preparation, setting goals, performance, monitoring and evaluation. Working memory (WM) updating, one of three executive functions (Miyake et al, 2000) is referred to as a constant monitoring of upcoming information, 'erasing' irrelevant and memorizing relevant content in WM. During the sight-reading performance, as 'online' activity musicians are constantly updating information about task execution and anticipation of the music material that follows, with an aim of maintaining the fluency and accuracy of performing without interrupting the musical stream. There are some findings confirming that musicians are outperforming non-musicians on WM updating tasks (Oechslin, Van De Ville, Lazeyras, Hauert, & James, 2012; Pallasen et al., 2010). However, there is no evidence about relations between WM updating, and sight-reading performance and strategies.

Aims

The present study was conducted in order to disentangle relations between sight-reading strategies used in different phases of activity and working memory (WM) updating performance.

Method

Our sample consisted of 84 graduate students of music (82% female). Two versions of the 3-back (verbal and spatial) task have been administered to our participants in order to tap WM updating. Participants filled in an 80 item (5-point Likert scales) self-report Sight-reading questionnaire for piano players (Bogunović, 2017) which gives a score of each different strategies over six phases of the sight-reading process: 1. Preparation (analytical, inner hearing, overview); 2. Setting goals (interpretative, technical, no goals); 3. Performance (expertness, flexibility, visual, continuity control); 4. Difficulties in playing (harmonic and structural complexity, readability of music notation, rhythm and tempo difficulties); 5. Easiness in playing (transparent musical structure, chunking of melody and rhythm, simple harmony); 6. Problem-solving (analytical, inefficient behavior). Also, participants self-rated their ability of sight-reading in general, and the extent of their enjoyment throughout this activity.

Results

Two versions of 3-back task correlated significantly ($r = .604, p = .000$), while three significant correlations have been obtained between updating and sight-reading scores. Spatial version of 3-back showed positive correlation with self-reported ability of sight-reading ($r = .268, p = .015$) and negative correlations with extent of experiencing difficulties related to readability of music notation while playing ($r = -.230, p = .039$) and difficulties in dealing with rhythm and tempo ($r = -.228, p = .040$). There were no more significant correlations between the WM updating and the rest of the sight-reading measures.

Conclusion

Results indicate that difficulties with sight-reading are related to lower WM updating performance in a non-verbal domain. Future studies should add expert ratings of sight-reading performance and investigate possible causal relations between lower WM updating scores and self-reported sight-reading difficulties.

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Keywords: sight-reading, executive functions, updating, metacognitive strategies, working memory.

Strategije čitanja s lista pri pevanju i sviranju

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Teorijske osnove

Čitanje s lista je 'online' aktivnost koja zahteva brz pregled celine i/ili delova, sa ciljem održavanja toka, tačnosti i ekspresivnosti izvođenja muzičkog dela, bez zaustavljanja, kao da je delo uvežbano. Upotreba strategija čitanja s lista u pevanju i sviranju se oslanja na relevantno konceptualno znanje i muzičke veštine (Fournier, 2017), kao i na organizaciju muzičkih i strategija rešavanja problema (Bogunović & Vujović, 2012). Koncept samo-regulisanog učenja korišćen je kao teorijski okvir za ispitivanje muzičkog izvođenja u šest faza: *priprema*, *postavljanje ciljeva*, *izvođenje*, *monitoring*, *rešavanje problema* i *evaluacija* (McPherson & Zimmerman, 2002).

Ciljevi

Nameravale smo da ustanovimo meta-kognitivne strategije tokom pevanja s lista i uporedimo ih sa već ustanovljenim strategijama tokom sviranja s lista (Bogunović, 2018), da utvrdimo razlike između studenata vokalno-instrumentalnih i teorijskih odseka, kao i da ustanovimo strategije tipične za ispitanike sa visokim stepenom samo-efikasnosti.

Metod

Uzorak čini 91 student muzike. Primenjen je Upitnik pevanja s lista (10 pitanja, Likertova skala 1-5, 78 strategija tokom 6 faza procesa). Upitnik predstavlja paralelnu formu Upitnika sviranja s lista koji je korišćen u prethodnom istraživanju (Bogunović, 2018). Faktorska analiza (PCA), Varimaks rotacija sa Kaiser normalizacijom, primenjena je za svaku od 6 faza pevanja i sviranja s lista. Na osnovu prethodnih i novih rezultata biće izvršeno upoređivanje faktora pevanja i sviranja s lista. Samoeфикаsnost je izražena samoprocenom kompetencija u pevanju s lista (1-5).

Rezultati

PCA je izdvojila faktore za svaku od šest faza čitanja s lista. Izdvajamo faktore u fazi *pripreme*: Opšti pregled, Analiza strukture, Unutrašnji sluh, Pregled osnovnih elemenata (63.37% objašnjene ukupne varijanse); tokom *postavljanja ciljeva*: Fluentnost i Ekspresivnost (65.97% varijanse); tokom *izvođenja*: Ekspertnost, Ekspresivnost, Unutrašnji sluh, Fokus na bitne delove (61.6% varijanse). Ustanovljene su visoke i značajne korelacije između faktora pevanja i čitanja s lista u svakoj fazi procesa, osim u fazi *izvođenja* gde je Ekspresivnost tokom sviranja viša. Analiza nije pokazala značajne razlike između studenata muzičke teorije i studenata vokalno-instrumentalnog odseka kada se radi o pevanju s lista. Razlike su ustanovljene u nekoliko faza sviranja s lista. Korelacija faktora pevanja s lista i samoeфикаsnosti pokazuje da oni koji sebe smatraju veštijima u pevanju s lista koriste meta-kognitivne strategije u fazi *pripreme* i *postavljanja ciljeva*, postavljaju Fluentnost ($r = .25, p = .017$) i Ekspresivnost ($r = .36, p = .000$) kao ciljeve tokom izvođenja i oslanjaju se na Unutrašnji sluh ($r = .34, p = .001$) i nemaju teškoće sa harmonskom i strukturalnom kompleksnošću ($r = -.37, p = .000$).

Zaključci

Nalazi ukazuju da se u osnovi pevanja i sviranja s lista nalaze gotovo iste kognitivne strategije. Razlika je prisutna samo tokom sviranja s lista kada je Ekspresivnost značajnije prisutna, što je

i očekivano s obzirom na prirodu aktivnosti. Samoefikasnost u pevanju s lista je povezana sa korišćenjem efikasnih meta-strategija. Nalazi istraživanja bi mogli doprineti povećanju korelacija između dve muzičke discipline (razvijanje sluha i vokalno-instrumentalno učenje) i time poboljšati rezultate muzičkog obrazovanja.

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Ključne reči: čitanje s lista, pevanje, sviranje, samo-regulisano izvođenje, metakognitivne strategije.

Sight-reading strategies in singing and playing

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Background

Sight-reading is an 'online' activity that asks for a quick insight into the whole and/or parts, with the task to maintain fluency, accuracy and expressiveness of a musical piece performance without stopping, as if it was practiced. The application of sight-reading strategies in singing and playing is influenced by relevant conceptual knowledge and musical skills (Fournier, 2017) and organization of musical and problem-solving strategies (Bogunović & Vujović, 2012). The concept of self-regulated learning was used as a framework for investigating musical performing in six subsequent phases: *preparation, setting goals, performing, monitoring, solving problems* and *evaluation* (McPherson & Zimmerman, 2002).

Aims

We intended to identify meta-cognitive strategies during sight-singing and compare them with already confirmed strategies in sight-playing (Bogunović, 2018), to identify differences between vocal-instrumental and music theory students, and to find out about strategies typical for those with higher self-efficacy.

Method

The sample consisted of 91 music students. The Sight-singing questionnaire was applied (10 questions, 1-5 Likert scale, 78 strategies during 6 phases). The questionnaire represents the parallel form of the Sight-playing questionnaire, used in a previous study (Bogunović, 2018). Factor

analysis (PCA, Varimax rotation method with Kaiser normalization) is applied for each of 6 sight-singing and sight-playing phases. On the basis of previous and new results the comparison between sight-singing and playing was performed.

Results

The PCA extracted factors for each phase of sight-reading. We present factors in *preparation* phase: General overview, Analytical-structure patterns, Inner hearing and Overview of basics (62.37% explained variance); for *setting-goals* stage: Fluency control and Expressiveness (65.97% of the variance), and for *performance* phase: Expertness, Expressive performing, Inner hearing, Focus on important points (61.61% of the variance). The significant and high correlations between factors in each phase of sight-singing and sight-playing were confirmed, except in a phase of performing when Expressiveness during playing was higher. The analysis didn't show significant differences between students of music theory and vocal-instrumentalists in any of the phases of sight-singing. Differences were identified concerning several phases of sight-playing. Findings pointed out that those musicians who have higher self-efficacy in sight singing use metacognitive strategies in *preparation* and *setting-goals* phase, set their goals towards Fluency control ($r = .25$, $p = .017$), Expressiveness ($r = .36$, $p = .000$) and Inner hearing ($r = .34$, $p = .001$), and do not have difficulties with harmony and structure complexity ($r = -.37$, $p = .000$).

Conclusions

Findings point out that almost the same cognitive strategies underlie the performance of sight-singing and sight-playing. The difference was noticed only during sight-playing when Expressiveness was significantly present, which is to be expected concerning the nature of activity. Self-efficacy in sight-singing is related to efficient meta-strategies. The research findings could contribute to increasing correlation between two musical disciplines (ear training and vocal-instrumental teaching) and therefore improve the level of educational outcomes.

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Keywords: sight-reading, singing, playing, self-regulated performing, metacognitive strategies.

Tematska sesija 4
MUZIKA, STRES I TREMA

Thematic Session 4
MUSIC, STRESS AND PERFORMANCE ANXIETY

Struktura ličnosti, anksioznost i perfekcionizam profesionalnih muzičara

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Teorijske osnove

U populaciji profesionalnih muzičara prisutno je međudejstvo perfekcionizma i visokog nivoa anksioznosti, poznate kao strepnja povodom javnog (muzičkog) nastupa ili izvođenja (Cox & Kenardy, 1993; Gorges, Alpers, & Puali, 2007; Stoeber & Eismann, 2007). Analiza dosadašnjeg istraživačkog opusa izdvaja specifične karakteristike ličnosti profesionalnih muzičara, koje se posmatraju kao rezultat bavljenja naznačenom profesijom (Bogunović, 2006; Kemp, 1981).

Ciljevi

Osnovno polazište i cilj ovog rada je usmeren ka istraživanju ličnosti profesionalnih muzičara, stepenu izraženosti anksioznosti tokom muzičkog nastupa, perfekcionizmu i njihovoj povezanosti.

Metod

Metod istraživanja je eksplorativan, zasnovan na korišćenju skraćene verzije Upitnika petofaktorskog modela ličnosti (NEO-FFI, Costa i McCrea, 1995; Đurić-Jočić, Džamonja-Ignjatović, & Knežević, 2009). Za procenu anksioznosti tokom javnog nastupa kod profesionalnih muzičara korišćen je Inventar anksioznosti tokom muzičkog izvođenja Diane Keni (K-MPAI, Kenny, Davis & Oates, 2004), dok je za merenje perfekcionizma upotrebljena Multidimenzionalna skala perfekcionizma (MPS-F, Flett & Hewitt, 2002). Uzorak se sastojao od 60 profesionalnih muzičara, obuhvatajući članove horova, kamernih ansambala/orkestara, ali i muzičare koji nastupaju kao solisti.

Rezultati

Dobijeni podaci ukazuju na to da dimenzija savjesnosti, kao osobina ličnosti, dominira kod populacije profesionalnih muzičara. Međusobne korelacije dimenzija ličnosti ukazuju na to da su profesionalni muzičari koji su ekstrovertni ujedno saradljivi ($r = .400, p = .002$) i savjesni ($r = .346, p = .007$). Nalazi ukazuju na povezanost dimenzija ličnosti i opštih svojstava profesionalnih muzičara. Naime, dužina profesionalnog bavljenja muzikom je povezana sa dimenzijom savjesnosti ($r = .281, p = .030$). Anksioznost je izražena u opsegu umerene, ali klinički relevantne ($M = 53.23, SD = 20.83$), što je pokazatelj nešto povišenog nivoa tenzije kod ispitanih muzičara. Pored toga, ustanovljena je značajna povezanost dimenzije neuroticizma sa skalom anksioznosti ($r = .645, p < .001$). Rezultati ukupnog perfekcionizma su u opsegu umerenog ($M = 75.58, SD = 16.92$). Značajnu povezanost smo dobili između dimenzije neuroticizma i ukupnog perfekcionizma ($r = .383, p = .002$); kao i njegovih pojedinih aspekata – zabrinutost zbog greške ($r = .458, p < .001$) i sumnje u vezi sa akcijom ($r = .402, p = .001$). Takođe, po intenzitetu povezanosti, ističe se i dimenzija savjesnosti koja pozitivno korelira sa aspektom organizovanosti ($r = .464, p < .001$) i negativno korelira sa aspektom sumnje u vezi sa akcijom ($r = -.434, p = .001$). Valja naglasiti i to da nalazi ukazuju na povezanost ukupnog perfekcionizma sa stepenom anksioznosti ($r = .311, p = .016$).

Zaključci

Nalazi našeg istraživanja ukazuju na postojanje određenih aspekata ličnosti profesionalnih muzičara, kao i na izraženost umerenog, ali klinički relevantnog stepena anksioznosti i perfekcionizma, te na njihovo međudejstvo.

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Ključne reči: profesionalni muzičari, dimenzije ličnosti, anksioznost povodom nastupa, perfekcionizam.

Personality structure, anxiety and perfectionism among professional musicians

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Background

The interdependence of perfectionism and high level of anxiety, also known as music performance anxiety, is very noticeable among professional musicians (Cox & Kenardy, 1993; Gorges, Alpers & Puali, 2007; Stoeber & Eismann, 2007). The analysis of the previous research opens specific characteristics of professional musicians' personalities, which have been observed as the result of professional engagement (Bogunović, 2006; Kemp, 1981).

Aims

The basic starting point and the aim of this work are directed towards exploration about professional musicians' personality, the degree of experienced anxiety during a public performance, perfectionism and their correlation.

Method

The method of this research is explorative, based on the short version of the Five-Factor Inventory model (NEO-FFI, Costa & McCrea, 1995; Đurić-Jočić, Džamonja-Ignjatović & Knežević, 2009). In order to assess the degree of performance anxiety among professional musicians, we used the

Kenny Music Performance Anxiety Inventory (K-MPAI, Kenny, Davis, & Oates, 2004), whereas the Multidimensional Perfectionism Scale (MPS-F) was used to measure musicians' perfectionism (Flett & Hewitt, 2002). The sample consisted of 60 professional musicians, which included members of choirs, chamber ensembles/orchestras, and solo musicians.

Results

The obtained data indicate that the dimension of conscientiousness, as a personality trait, dominated among the professional musicians. Intercorrelations of personality dimensions indicate that professional musicians who are extroverted are cooperative ($r = .400, p = .002$) and conscientious ($r = .346, p = .007$), at the same time. The results of the research demonstrate the relationship between personality dimensions and general features of professional musicians. More precisely, the length of professional music engagement is related to the dimension of conscientiousness ($r = .281, p = .030$). Anxiety is expressed in the range of moderate, but clinically relevant ($M = 53.23, SD = 20.83$), which is an indication of a slightly elevated level of tension among the surveyed musicians. In addition, a significant correlation between the dimension of neuroticism and the anxiety scale ($r = .645, p < .001$) was established. The results of overall perfectionism scale are in the range of moderate ($M = 75.58, SD = 16.92$). We got a significant correlation between dimensions of neuroticism and overall perfectionism ($r = .383, p = .002$); as well as its individual aspects – concern about mistake ($r = .458, p < .001$) and mistrust in relation to action ($r = .402, p = .001$). Two interesting correlations conscientiousness as personality dimension are worthwhile to be emphasized: positive correlation with the aspect of organization ($r = .464, p < .001$) and (2) negative correlation with the aspect of mistrust in relation to action ($r = -.434, p < .001$). It should be pointed out that our findings prove the connection of overall perfectionism with the degree of anxiety ($r = .311, p = .016$).

Conclusions

The findings of our research confirm the existence of certain personality aspects of among professional musicians, as well as the expression of a moderate, but clinically relevant degree of anxiety and perfectionism, and showed their intercorrelations.

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Keywords: professional musicians, personality dimensions, performance anxiety, perfectionism

Klasični i džez muzičari: razlike u stilovima ovladavanja stresom i socijalnim kompetencijama

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Teorijske osnove

Ovladavanje stresom ne zavisi samo od adekvatnog nivoa muzičkih sposobnosti i veština, već i od broja ličnih kompetencija. Stil ovladavanja tokom stresnih situacija određuje podjednako efikasno funkcionisanje individue u okruženju i postizanje uspeha (Strelau, Jaworowska, Wrześniewski, & Szczepaniak, 2005). Način na koji muzičar reaguje na stres u kontekstu javnog nastupa je, stoga, ključno pitanje. Ovladavanje stresom, uključujući i tremu povezanu sa javnom izloženošću, je takođe jedna od osnovnih kompetencija koje muzičar treba da poseduje. Povezanost između efikasnih strategija ovladavanja stresom, visokog nivoa samo-efikasnosti i umetničkog postignuća je već pokazana (McPherson & Schubert, 2004).

Ciljevi

Osnovni cilj istraživanja je da se sazna o razlikama između muzičara koji se edukuju u polju klasične i džez muzike, kada se radi o njihovim strategijama za ovladavanje stresom i o socijalnim kompetencijama. Podjednako je važno da se sazna o odnosu između strategija ovladavanja stresom i socijalnih kompetencija u kontekstu javne izloženosti, kao i da se verifikuje da li postoje razlike između klasičnih i džez muzičara.

Metod

Uzorak za istraživanje se sastojao od studenata Muzičke akademije u Bidgošću – 38 studenata klasične muzike na Odseku za instrumentalnu muziku i 35 studenata džeza na Odseku za dirigovanje, džez i muzičko obrazovanje. Svaki poduzorak se sastojao od studenata koji sviraju različite instrumente (gudačke, klavijaturne, drvene duvačke instrumente i udaraljke). Starost ispitivanih studenata je od 18 do 28 godina ($M = 21.25$, $SD = 1.94$). Bilo je 27 žena (37%) i 46 muškaraca (63%). U studiji su korišćena dva upitnika: Inventar ovladavanja stresnim situacijama (CISS; Endler & Parker, 1990), koji meri tri stila ovladavanja stresom (stil orijentisan na zadatak, emociju i izbegavanje) i Upitnik socijalnih kompetencija (SCQ; Matczak, 1997), koji meri tri vida socijalne kompetencije (u intimnim situacijama, situacijama socijalne izloženosti i situacijama koje zahtevaju asertivnost). STATISTICA softver je korišćen za računanje rezultata. Pored neophodne deskriptivne analize, korišćeni su neparametrijski testovi značajnosti razlika između grupa, kao i Spirmanov rang korelacije.

Rezultati

Već je naglašena važnost ispitivanja razlika u smislu socijalnih kompetencija u polju socijalne izloženosti, odnosno javnog nastupanja. Ustanovljeno je da džez muzičari pokazuju značajno viši nivo socijalnih veština tokom javnih nastupanja ($M = 6.51$, $SD = 2.24$), što znači da oni značajno bolje, u poređenju sa klasičnim muzičarima ($M = 5.34$, $SD = 2.43$), vladaju situacijama javnog nastupanja ($U = 490$, $p < .05$).

Zaključci

Važno je naglasiti da je namera da se sazna više o specifičnostima funkcionisanja klasičnih i džez muzičara u oblasti socijalnih kompetencija i strategija ovladavanja stresom rezultirala nalazima o određenim razlikama u karakteristikama između ove dve grupe instrumentalista. Teško je proceniti da li je razlika rezultat samog žanra kojim se muzičari bave ili specifičnosti obrazovanja za muzički žanr, u okviru koga su delovali. Svakako, ovo istraživanje, u okviru oblasti psihologije individualnih razlika, otkriva da pripadnost specifičnoj grupi instrumentalista, klasičnih ili džez, pravi određeni stepen razlika u psihološkom funkcionisanju muzičara, kada se radi o ispitivanim dimenzijama.

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Ključne reči: stilovi ovladavanja stresom, socijalne kompetencije, klasični muzičari, džez muzičari.

Differences in the stress coping styles and social competences between classical and jazz musicians

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Background

Coping with these depends not only on the appropriate level of musical abilities and skills but also on a number of personal competences. The style of coping with stressful situations determines both the effective functioning of a human in the world and the achievement of successes (Strelau, Jaworowska, Wrześniewski, & Szczepaniak, 2005). The musicians' way of responding to the stress in the context of public performances is, therefore, a key issue. Coping with stress, including the stage fright associated with public exposure, is also one of the elementary competences that a musician should be characterized by. The relationship between effective stress coping strategies, a high level of sense of self-efficacy and artistic achievements has been demonstrated (McPherson & Schubert, 2004).

Aims

The main goal of the research is to find out about differences between musicians educating themselves in the field of classical and jazz music, in terms of their strategies for coping with stress and in terms of social competences. It is equally important to determine the existence of relationships between strategies for coping with stress and social competences in terms of social exposure and to verify whether there are differences between classical and jazz musicians in this area.

Method

The sample consisted of students from the Music Academy in Bydgoszcz ($N = 73$), 38 studied classical music at the Instrumental Department, and 35 jazz at the Department of Conducting, Jazz and Music Education. Each subsample consisted of students playing various instruments (string, keyboards, woodwinds, percussion). The age of the surveyed students ranged from 18 to 28 years ($M = 21.25$, $SD = 1.94$). In the study 27 women (37%) and 46 men (63%) took part. The study used two questionnaires: Coping inventory for stressful situations (CISS; Endler & Parker, 1990), which measures three styles of coping with stress (task-, emotion- and avoidance-oriented styles) and Social Competences Questionnaire (SCQ; Matczak, 1997), which measures three forms of social competence (in intimate situations, in social exposure situations and in situations that require assertiveness). STATISTICA software was used to calculate the results. Apart from the necessary descriptive statistics, non-parametric tests of significance of differences between groups and Spearman's rank correlation were used.

Results

Importance of differences between musicians was noted, above all in terms of social competences in the field of social exposure. It was found out that jazz musicians demonstrated a significantly higher level of social exposure skills ($M = 6.51$, $SD = 2.24$), which means that they are much better, in comparison to classical musicians ($M = 5.34$, $SD = 2.43$), in dealing with the situation of a public performance ($U = 490$, $p < .05$).

Conclusions

It is worthwhile emphasizing that the attempt to learn the specificity of the functioning of classical and jazz musicians in terms of social competences and stress coping strategies, indicated the existence of certain differences in characteristics between these two groups of instrumentalists. It is difficult to estimate whether they are the result of dealing with a specific music genre or the specificity of education. However, this research in the field of psychology of individual differences, reveals that belonging to a specific group of instrumentalists, classical or jazz, differentiates to a certain extent, the psychological functioning of musicians in the indicated dimensions.

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Keywords: stress coping styles, social competences, classical musicians, jazz musicians.

Trema i perfekcionizam kod hrvatskih muzičara

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Teorijske osnove

Trema je sastavni dio života svakog muzičara u situaciji javnog nastupa. Razlike koje postoje u doživljaju i izraženosti treme povezuju se s individualnim razlikama u ličnosti. Perfekcionizam je osobina ličnosti koju karakterizira težnja za nepogrešivošću i izuzetno visoki standardi koje prate velika samokritičnost i zabrinutost zbog tuđih procjena. Najčešća podjela perfekcionizma je na pozitivni ili adaptivni te negativni ili neadaptivni perfekcionizam. Dosadašnja istraživanja utvrdila su povezanost neadaptivnog perfekcionizma i treme kod učenika (Patston & Osborne, 2016; Stoeber & Eismann, 2007), studenata (Yoshie & Shigemasu, 2007) i profesionalnih glazbenika (Kenny, Davis, & Oates, 2004; Kobori, Yoshie, Kudo, & Ohtsuki, 2011; Mor, Day, Flett, & Hewitt, 1995).

Ciljevi

Cilj ovog istraživanja, koliko je nama poznato prvog takvog u Hrvatskoj, bio je ispitati izraženost treme prilikom javnog glazbenog nastupanja, kao i njenu povezanost s perfekcionizmom na dva uzorka, studentima Muzičke akademije i članovima nekoliko profesionalnih orkestara u Zagrebu.

Metod

Podaci su prikupljeni na uzorku 153 (51.3% žena) studenta Muzičke akademije i 88 (48.2% žena) članova profesionalnih orkestara koji su ispunili Revidiranu skalu anksioznosti prilikom javnog glazbenog nastupanja (K-MPAI-R; Kenny, 2009) i Revidiranu ljestvicu težnje perfekcionizmu (R-APS).

Rezultati

Trema je bila izraženija kod studenata ($M = 96.06$, $SD = 33.93$) nego kod orkestralnih muzičara ($M = 67.28$, $SD = 32.24$), a razlika je bila statistički značajna s velikom veličinom efekta ($t(235) = 6.37$, $p < .001$, $d = 0.87$). Neadaptivni perfekcionizam je bio pozitivno povezan s tremom i na uzorku studenata ($r(150) = .65$, $p < .001$) i na uzorku orkestralnih muzičara ($r(84) = .53$, $p < .001$). Na oba uzorka su s neadaptivnim perfekcionizmom najviše bili povezani faktori negativne kognicije, tjelesna anksioznost i briga oko nastupa, te psihološka ranjivost.

Zaključci

Trema je izraženija kod studenata nego kod orkestralnih muzičara u Hrvatskoj. U skladu s prethodnim istraživanjima s tremom je povezan neadaptivni perfekcionizam, a dobivene povezanosti ukazuju da najviše treba raditi na negativnim kognicijama, tjelesnoj anksioznosti i brizi oko nastupa, te psihološkoj ranjivosti.

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Ključne reči: trema, perfekcionizam, muzičari.

Music performance anxiety and perfectionism in Croatian musicians

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Background

Music performance anxiety is part of every musician's life. Individual differences in music performance anxiety can be associated with individual differences in personality. Perfectionism is a personality trait characterized by striving for flawlessness and setting high-performance standards, critical self-evaluations and evaluation concerns. Perfectionism is usually conceptualized as positive or adaptive and negative or maladaptive. Previous studies have shown that maladaptive perfectionism is associated with music performance anxiety in music students, both in adolescence (Patston & Osborne, 2016; Stoeber & Eismann, 2007) and early adulthood (Yoshie & Shigemasu, 2007), and in professional musicians (Kenny, Davis, & Oates, 2004; Kobori, Yoshie, Kudo, & Ohtsuki, 2011; Mor, Day, Flett, & Hewitt, 1995).

Aims

Aim of this study, to our knowledge the first in Croatia, was to examine music performance anxiety and its association with perfectionism in two samples, among music students studying at the Music Academy and members of professional orchestras in Zagreb.

Method

Data were collected for 153 (51.3% female) music students and 88 (48.2% female) orchestral musicians who filled in Kenny Music Performance Anxiety Inventory-Revised (K-MPAI-R; Kenny, 2009) and Almost Perfect Scale-Revised (R-APS).

Results

Music performance anxiety was higher in music students ($M = 96.06$, $SD = 33.93$) than in orchestral musicians ($M = 67.28$, $SD = 32.24$), and this difference was statistically significant with large effect size ($t(235) = 6.37$, $p < .001$, $d = 0.87$). Maladaptive perfectionism was positively associated

with music performance anxiety in music students ($r(150) = .65, p < .001$) and in orchestral musicians ($r(84) = .53, p < .001$). In both samples highest correlations with maladaptive perfectionism were found for negative cognitions, proximal somatic anxiety and worry about performance, and psychological vulnerability.

Conclusions

Music students in Croatia had higher music performance anxiety than orchestral musicians. In line with previous studies, maladaptive perfectionism was correlated with music performance anxiety, indicating negative cognitions, proximal somatic anxiety and worry about performance, and psychological vulnerability as important factors.

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Keywords: performance anxiety, perfectionism, musicians.

Neki aspekti scenske anksioznosti kod muzičkih umetnika: psihoanalitička perspektiva

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Teorijske osnove

Uprkos ogromnoj količini psihoanalitičke literature, pitanje scenske anksioznosti gotovo da je zanemareno. Poznavanje psihodinamike afekata, kreativne regresije i zdravog egzibicionizma, kao i neposredno iskustvo u radu sa muzičarima izvođačima može doprineti razumevanju ovog fenomena.

Ciljevi

Velika prepreka u karijeri muzičara može biti ambivalentan odnos između duboke motivisanosti da se javno muzicira i anksioznosti povezane sa samim činom izvođenja. Ova anksioznost može dovesti do potpune inhibicije izvođačke aktivnosti (Gabbard, 1979). Neki istraživači su uočili i da približno polovina izvođača klasične muzike doživljava ozbiljne probleme vezane za tremu, anksioznost i depresiju. Izvođačka anksioznost predstavlja posledicu uzajamnog dejstva mnogih faktora, konstitucionih, sredinskih, emocionalnih, kognitivnih, bihevioralnih i slično. Mnogo manje pažnje posvećeno je nesvesnim korenima ovog problema.

U ovom radu, fokusiramo se na dva generička faktora koja, posmatrana iz psihoanalitičke perspektive, igraju značajnu ulogu u generisanju snažne doživljajne scenske anksioznosti: jedan se odnosi na kreativnu regresiju, drugi se tiče afektivne sfere.

Glavni doprinos

Na prvom mestu, kako smo prethodno na više mesta podvlačili (Zatkalik & Kontić, 2015), kreativna regresija je krucijalni preduslov za kvalitet muzičkog izvođenja; ona podrazumeva potrebu da se aktiviraju razvojno najstariji modovi doživljavanja. U isto vreme, izvođač mora posedovati visoki nivo vladanja instrumentom, te kontrolisati najmanju mogućnost memorijske greške ili inhibicije. Kako u tom smislu čin muzičkog izvođenja uključuje balansiranje između primarnih (regresija) i sekundarnih procesa (jaka kontrola memorijske i motorne aktivnosti) nužno se događa rascjep ego-funkcija, te se, posledično, generišu značajni nivoi anksioznosti kojom treba ovladati (Feder, Karmel, & Pollock, 1993).

Drugi značajan faktor u celosti pripada afektivnoj sferi: muzičari-instrumentalisti, kao i kompozitori, prezentiraju publici svoj najranjiviji, najintimniji aspekt preverbalnog selfa. Reakcija publike može biti pozitivna (tako podržavajući koheziju zdravog narcističkog sektora ličnosti), ali i negativna (kada može značajno dovesti do fragmentacije narcističkih konfiguracija selfa). U svakom slučaju, međutim, reakcija publike se ne može kontrolisati, te tako stavlja izvođača u poziciju kompletne pasivnosti, što predstavlja dodatni izvor anksioznog reagovanja.

Implikacije

Finalni deo izlaganja diskutuje implikacije na edukovanje budućih profesionalnih muzičara, u smislu optimalnog razvoja njihovog kohezivnog selfa i ego-snage koja omogućava ovladavanje

anksioznošću, koja tada može da bude stavljena u službu kreativno-produktivnog života, pre nego u obrazovanje simptoma, izbegavanja ili izolovanja od scene.

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Ključne reči: muzički umetnik, scenska anksioznost, psihoanaliza, regresija, narcizam.

Some notes on the performance anxiety among musicians: Psychoanalytic perspective

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Background

Despite the vast amount of existing psychoanalytic literature, the question of performance anxiety is almost neglected. The knowledge of the psychodynamics of affects, creative regression, and healthy exhibitionism, as well as the first-hand experience with performing musicians, may contribute to the understanding of this complex phenomenon.

Aims

A major impediment to performing musicians is the ambivalence between profound motivation to perform and anxiety connected with the act of performing. This anxiety may even lead to the complete inhibition of performing an activity (Gabbard, 1979). Some researchers have observed that roughly one-half of performers of classical music experience a significant problem connected to stage fright, anxiety and depression. Music performance anxiety (MPA) is an outcome of the interplay of many factors, from genetics and environmental stimuli to the individual's experience, emotions, cognition and behavioral habits. What has received much less attention, however, is the unconscious roots of this problem.

In the present paper, we shall focus on two generic factors that, from the psychoanalytic prospective, play a part in the process of generating high amounts of MPA: one related to creative regression, the other concerning the affective sphere.

Main contributions

Firstly, as we have pointed out elsewhere (Zatkalik & Kontić, 2015), creative regression is the crucial prerequisite for the quality of musical performance. Since the act of performing involves balancing between regression (primary processes), and high control of memory and motor activity (secondary processes), a split of the ego occurs, with freely floating anxiety that is difficult to master (Feder, Karmel, & Pollock, 1993).

A second major factor belongs to the affective sphere: performing musicians are presenting to the audience their most vulnerable preverbal self. Reactions of the audience, however, whether

positive (hence extremely important for the balance of the healthy narcissistic self), or negative (potentially provoking self-enfeeblement) cannot be controlled, which constitutes an additional source of anxiety.

Implications

Some implications of these views relate to the education of prospective creative-productive professional musicians in the domain of the development of cohesive self and ego strength that is able to master the anxiety. This mastery would serve a creative and productive life, instead of leading into symptoms or isolation from the stage.

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Keywords: musician, performance anxiety, psychoanalysis, regression, narcissism.

Tematska sesija 5
PSIHOLOGIJA MUZIČKOG IZVOĐENJA

Thematic Session 5
PSYCHOLOGY OF MUSIC PERFORMANCE

Momenti fokusirane imersije (MFI) tokom muzičkog izvođenja: teorijski okvir

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Teorijske osnove

Tema svesti i izmenjenih stanja uma odavno je privukla pažnju muzičkih psihologa. Uprkos toj činjenici i nedavnom napretku u neuronauci, promene svesti tokom čina izvođenja nisu podrobno istražene, uglavnom zbog nedostatka odgovarajuće teorije. Takođe, do sada je teorijsko i empirijsko istraživanje, koje povezuje promene svesti u realnom vremenu tokom izvođenja sa elementima procesa izvođenja, kao i sa percepcijom i evaluacijom izvođenja od strane slušalaca, bilo oskudno.

Ciljevi

Predlažem teorijski okvir zasnovan na konceptima i empirijskim rezultatima preuzetim iz analize izvođenja (Husserl 1893–1917/1966, Jackendoff & Lerdahl 2006. i Juslin 2013), pedagoške prakse i sportske nauke (posebno iz istraživanja o kontroli pažnje u sportu, npr. Singer et al. 1996, Savelsbergh et al. 2002), kako bih objasnio suptilne, ali i značajne i dobro definisane promene svesti izvođača tokom stvarnog izvođenja (MFI: momenti fokusirane imersije/uranjanja), koje se odnose na vremensku 'navigaciju' u muzičkom procesu (Stachó, 2018). Ovi MFI predstavljaju ključni deo procesa i strategije fokusirane pažnje izvođača i veoma značajno doprinose ekspresivnosti izvođenja.

Glavni doprinos

Promene u svesti izvođača tokom izvođenja obično označavaju trenutke fokusirane imersije (uranjanja) kada se izvođač 'pozicionira' u različite vremenske perspektive. U činu izvođenja pozicioniranje u budućnost podrazumeva formiranje kognitivne mape budućih strukturnih jedinica (uključujući procenu trajanja predstojećih – obično hijerarhijski ugrađenih – strukturnih jedinica kroz osećanje njihove dužine), uranjanje u sadašnjost podrazumeva duboki osećaj trenutnog zvučanja (koji omogućava muzičaru – i, kroz empatiju, njegovoj publici – da u potpunosti uživaju u sadašnjem trenutku zvuka), dok aktivno podsećanje na prošlost uključuje razvoj mentalne slike prethodnih muzičkih jedinica gde se, one koje slede, mere. Kognitivna navigacija je, dakle, intimno povezana sa osećajem vremena i, na osnovu ovog razmatranja, teorija predstavlja integraciju kognitivističkog i emotivističkog pristupa muzičkom procesuiranju.

Implikacije

Operacionalizacija teorije može otvoriti put za inovativni kognitivni pristup u teoriji muzike, analizi i estetici. Nadalje, teorija ima veliki potencijal za primenu u pedagogiji izvođaštva, jer može doprineti razvoju novog pristupa i metodologiji za poboljšanje i praktikovanje izvođačkih sposobnosti, donoseći pedagogiji izvođaštva istinski kognitivni pristup.

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Ključne reči: svest, muzički performans, fenomenologija, vremenske perspektive, MFI (momenti fokusirane imersije).

Moments of Focused Immersion (MFIs) during music performance: A theoretical framework

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Background

The topic of consciousness and altered states of mind has long captured the attention of music psychologists. Despite this fact and recent advances in neuroscience, changes of consciousness in the act of performance have barely been investigated in-depth, mainly due to the lack of an appropriate theory. Also, theoretical and empirical investigation linking real-time changes in consciousness during a performance with elements of the performance process, as well as with listeners' perception and evaluation of a performance, has so far been scarce.

Aims

I propose a theoretical framework, based on concepts and empirical results taken from performance analysis (especially in relation to Husserl 1893–1917/1966, Jackendoff & Lerdahl 2006, and Juslin 2013), pedagogical practice and sports science (especially from research of attentional control in sports, e.g., Singer et al. 1996, Savelsbergh et al. 2002), to account for subtle but significant and well-definable changes in the performer's consciousness during an actual performance ('MFIs': Moments of Focused Immersion) that are related to the temporal 'navigation' in the musical process (Stachó, 2018). These MFIs constitute a crucial part of performers' attentional processes and strategies and very significantly contribute to performance expressivity.

Main contribution

Changes in the performer's consciousness in the course of performance typically mark moments of focused immersion when the performer 'positions' her/himself into different time perspectives. In the act of performance, positioning into the future involves the formation of a cognitive map of the forthcoming structural units (including estimating the durations of the forthcoming – usually hierarchically embedded – structural units through feeling their length), immersing in the present involves deep feeling of the sounding moment (which allows the musician – and, through empathy, the musician's audience – to fully enjoy the present sounding moment), whereas active recalling of the past involves the development of a mental image of the preceding musical units to which the subsequent ones are to be measured. Cognitive navigation is thus

intimately linked to feeling the time and based on this consideration, the theory represents an integration of cognitivist and emotionalist approaches to music processing.

Implications

The operationalization of the theory can open the way for an innovative cognitive approach in music theory, analysis and aesthetics. Furthermore, the theory has a strong potential for applications in performance pedagogy as it can contribute to the development of a novel approach and methodologies of enhancing and practicing performing abilities, bringing a genuinely cognitive approach to performance pedagogy as well.

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Keywords: consciousness, music performance, phenomenology, time perspectives, MFIs (Moments of Focused Immersion).

Percepcija idiosinkratičnosti izvođenja kompozicije *Sirinks* za solo flautu Kloda Debisija

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Teorijske osnove

(Pravilna) izvođačka izražajnost intrigira mnoge autore: da li je interpretator 'samo' *posrednik* između partiture i slušaoca ili, upisujući svoju kreativnost u postojeće značenje kompozicije, treba da postane njen *drugi stvaralac*? Juslin navodi da na interpretaciju utiču *unutrašnji* (težnja da se izrazi nešto lično) i *spoljašnji* faktori (muzički stil ili struktura dela) (Juslin, 2003), dok Kuk ističe da „svako izvođenje postoji ne samo, takoreći, *vertikalno*, u odnosu prema partituri, već i *horizontalno*, u relaciji sa drugim izvođenjima” (Cook, 2005).

Ciljevi

Cilj ovog empirijskog istraživanja jeste ispitivanje percepcije karaktera Debisijeve (1862–1918) kompozicije *Sirinks* za solo flautu (1913), tokom slušanja izvođenja tri renomirana izvođača. Usled jasno određenog mitskog/*pastoralnog* sadržaja dela (Monelle, 2006), postavlja se pitanje da li različita izvođenja mogu da izazovu značajno različite utiske o njegovom karakteru kod slušalaca i koji elementi muzičke interpretacije (izbor tempa, dinamike, tembra, vibrata i artikulacije) to (ne) uslovljavaju. Ispitivali smo, takođe, metaforični i doživljajni nivo percepcije izvođenja.

Metod

Uzorak od 103 ispitanika činili su studenti Fakulteta muzičke umetnosti (Beograd), koji su davali odgovore na 18 pitanja u upitniku: najpre opšte varijable (5) i slušni zadatak (9). Zvučni materijal predstavljaju interpretacije predstavnika francuske flautske škole – Golveja, Paija i Rampala. Bez datih informacija o naslovu, autoru dela i izvođačima, ispitanici su tokom slušanja pojedinačnih interpretacija procenjivali stepen ispoljenosti 15 ponuđenih karaktera (Likertova skala 1–5), predlagali sopstvene naslove kompozicije i ukazali na način donošenja svojih odluka (4 pitanja). Karakteri su određeni posredstvom referentnih rečnika muzičkih termina i intersubjektivne saglasnosti 4 nezavisna procenjivača. Primenjena je kvantitativna i kvalitativna analiza podataka.

Rezultati

Rezultati upućuju na to da se interpretacije statistički značajno razlikuju po pitanju, na primer, 1) *pastoralnog* – tokom interpretacije Paija ispitanici su u većoj meri čuli *pastoralni* karakter dela nego tokom Rampalove interpretacije ($t(97) = 7.14, p = .000$) – ili 2) *nemirnog* – Rampalovo izvođenje je doživljeno kao *nemirnije* nego Golvejevo ($t(99) = -6.26, p = .000$) – karaktera dela. Studenti su u vezi sa prvim izvođenjem predložili naslove koji se prema sadržaju najviše svrstavaju u kategoriju *priroda* (35.5%), dok naslovi za drugo (35.1%) i treće (33%) izvođenje u najvećoj meri pripadaju kategoriji *osećanja*, pri čemu naslovi dati tokom Paijevog izvođenja *u velikoj meri odgovaraju* sadržaju samog mita o Panu (34%), dok, u slučaju Ramapalove interpretacije najviše potpadaju u *ne odgovaraju sadržaju mita* kategoriju (31.9%).

Zaključci

Ovim istraživanjem je potvrđena pretpostavka o idiosinkratičnosti muzičkog izvođenja i značajnoj ulozi izvođača koji svojom interpretacijom (treba da) *tumači* delo slušaocu: svi navedeni elementi interpretacije značajno su povezani sa doživljajem karaktera kompozicije. Metaforički plan opažanja dela svedoči da su interpretacije Golveja i Paija sličnije percipirane, dok su tokom

Rampalove interpretacije ispitanici zapisivali kao naslove asocijacije koje u najvećoj meri ne odgovaraju programu dela, zahvaljujući intenzivnijem vibratu flautiste i izboru bržeg tempa.

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Ključne reči: idiosinkratičnost muzičkog izvođenja, karakter muzičkog dela, elementi muzičke interpretacije, pastoralnost, *Sirinks*.

Perception of idiosyncrasy in performances of the Debussy's *Syrinx* for solo flute

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Background

(The right type of) performance expression has been intriguing for the number of authors: whether the performer is “only” an intermediary between the score and the listener or he should, by inputting his own creativity into the already present meaning of the work, become its *second creator*? Juslin states that interpretation is influenced by both *internal* (wanting to express something personal) and *external* factors (musical style or the structure of the piece) (Juslin, 2003), while Cook highlights that “each performance exists not only *vertically*, so to speak, in relation to the score, but also *horizontally*, in relation to other performances” (Cook, 2005).

Aims

The aim of this empirical research is to investigate the perception of the character of Debussy's (1862–1918) *Syrinx* for solo flute (1913), during the listening of three renowned flutists. Considering the clearly defined mythical/*pastoral* program of the work (Monelle, 2006), these questions arise: whether different performances can cause significantly different impressions about the character of the piece among listeners, and which elements of musical interpretation (choice of tempo, dynamics, timbre, vibrato, articulation) (do not) condition that. We examined, also, the metaphorical and experience levels of perception.

Method

The sample consisted of 103 participants, students of Faculty of Music Arts (Belgrade), who provided answers to 18 questions in the questionnaire: firstly, general variables (5), and listening assignment (9). Listening material were interpretations by three exponents of the French Flute School – Galway, Pahud and Rampal. Without given information about the title, the author of the work and performers, participants – during the listening of individual interpretations – estimated manifestation levels of the 15 offered characters (Likert scale 1–5), proposed their own composi-

tion titles and pointed out how they made their answer decisions (4 questions). The characters were determined by the reference vocabularies of musical terms and intersubjective agreement of 4 independent assessors. The results were obtained by quantitative and qualitative data analysis.

Results

The results indicate that differences among interpretations are statistically significant in terms of, for example, 1) pastoral – during the Pahud's interpretation, participants experienced pastoral character of the work more than during Rampal's interpretation ($t(97) = 7.14, p = .000$) or 2) restless – Rampal's performance was seen as more *restless* than Galway's ($t(99) = -6.26, p = .000$). Regarding the first performance, students proposed titles that can be mostly classified into the category of *nature* (35.5%), while the titles for the second (35.1%) and the third (33%) performance can mostly be classified into the category of *feelings*, whereby, the titles that were given during Pahud's performance *largely correspond* to the content of the Pan myth (34%), while, in the case of Ramapal's interpretation, titles mostly fall into the *not corresponding* to the content of myth category (31.9%).

Conclusions

This research confirms the assumption of the idiosyncrasy of musical interpretation and the important role of the performer, who through his interpretation *explains* the piece to the listener: all elements of the interpretation are significantly related to the experience of the work's character. The metaphorical plan of the observation indicates that the interpretations of Galway and Pahud were more similarly perceived, while, in relation to the Rampal's interpretation respondents gave the title associations which largely didn't correspond to the program of the work, thanks to his more intense vibrato and the choice of a faster tempo.

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Keywords: idiosyncratic of musical performing, the character of musical work, elements of musical interpretation, pastoral, *Syrinx*.

Odnos kreativnosti s osobinama ličnosti i kreativnim pojmom o sebi kod klapskih pjevača

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Teorijske osnove

Istraživanja dosljedno pokazuju povezanost kreativnosti i osobina ličnosti, primarno otvorenosti (Feist, 1998). Međutim, novija istraživanja dodatno se usmjeravaju na kreativno samopoimanje te ukazuju na njegovu povezanost s osobinama ličnosti (Karwowski, Lebuda, Wisniewska, & Gralewski, 2013) i različitim mjerama kreativnosti (Karwowski, Lebuda, & Wisniewska, 2018), kao i na njegovu medijacijsku ulogu u odnosu ličnosti i kreativnog postignuća (Chen, 2016).

Ciljevi

Cilj ovog istraživanja bio je na uzorku klapskih pjevača (razina Pro-c ili profesionalna kreativnost prema Četiri C modelu kreativnosti; Kaufman & Beghetto, 2009) provjeriti je li odnos između osobina ličnosti i kreativnosti posredovan dimenzijama kreativnog samopoimanja.

Metod

Sudionici istraživanja su bili pjevači i pjevačice iz 17 hrvatskih klapa ($N = 120$) koji su u manjim grupama ispunili anketni upitnik koji se sastojao od BFI-2 upitnika ličnosti (Soto & John, 2017), Kratke skale kreativnog pojma o sebi (Karwowski et al., 2018), te nekoliko pitanja koja se odnose na demografske karakteristike sudionika i procjenu kreativnosti i kreativnih postignuća. Osim podataka prikupljenih samoprocjenama, za svakog sudionika smo od dva člana klape prikupili i procjene na varijablama otvorenosti, kreativnosti te kreativnog postignuća.

Rezultati

Samoprocjena otvorenosti direktno je predviđala samoprocjenu ($c' = .27$) i procjenu ($c' = .30$) kreativnih postignuća, te procjenu kreativnosti ($c' = .33$; sve $p < .05$), dok je procjena otvorenosti direktno predviđala procjene kreativnosti ($c' = .60$) i kreativnih postignuća ($c' = .32$; sve $p < .001$), ali ne i samoprocjene kreativnosti i kreativnog postignuća. Očekivano posredovanje odnosa ličnosti i kreativnosti kreativnim samopoimanjem pronađeno je samo za odnos između samoprocjene otvorenosti i samoprocjene opće razine kreativnosti ($a*b = .40$; $p < .001$).

Zaključci

Kreativno samopoimanje objašnjava odnos između otvorenosti i kreativnosti mjerenih putem samoprocjena, ali samo kada se radi o subjektivnim procjenama vlastite razine kreativnosti, dok ne doprinosi objašnjavanju kreativnosti ispitivane objektivnijim mjerama postignuća. Prilikom tumačenja rezultata u obzir treba uzeti preklapanje ispitivanih konstrukata te pristranosti samoprocjena kojima su objektivnije mjere postignuća i procjene drugih manje podložne. Također, moguće je da različite mjere kreativnosti zahvaćaju različite aspekte ovog konstrukta koji su u različitim odnosima s kreativnim samopoimanjem. Očekivano, dobivene povezanosti između konstrukata su veće ako su konstrukti mjereni istom metodom.

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Ključne reči: ličnost, kreativnost, kreativno samopojmanje, klapski pjevači.

Creativity, personality and creative self among Croatian a capella singers

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Background

Research consistently shows a relationship between creativity and personality traits, primarily openness (Feist, 1998). Recent research has further demonstrated that dimensions of the creative self are associated with personality traits (Karwowski, Lebuda, Wisniewska, & Gralewski, 2013) and various measures of creativity (Karwowski, Lebuda, & Wisniewska, 2018), while acting as a mediator between personality and creative achievement (Chen, 2016).

Aims

The aim of this study was to examine whether the relationship between personality traits and creativity is mediated by the creative self in a sample of a cappella singers (Pro-c or professional creativity level in the Four C model of creativity; Kaufman & Beghetto, 2009).

Method

Participants were singers from 17 Croatian a cappella groups ($N = 120$), who filled out a questionnaire comprising the BFI-2 (Soto & John, 2017), the Short Scale of Creative Self (Karwowski et al., 2018), various assessments of creativity and creative achievements, and a few questions about their demographic characteristics. Additionally, each participant was assessed by two other members of the group on openness, creativity and creative achievement.

Results

Self-reported openness had a significant direct influence on self-reported ($c' = .27$) and peer-reported creative achievements ($c' = .30$) and peer-reported creativity ($c' = .33$; all $p < .05$), while peer-reported openness had a significant direct influence only on peer-reported creativity ($c' = .60$) and creative achievements ($c' = .32$; all $p < .001$), and not on self-reported creativity and creative achievements. The expected mediation of the personality-creativity association by creative self was only found for the association between self-reported openness and self-reported creativity ($a*b = .40$; $p < .001$).

Conclusions

The relationship between openness and creativity is mediated by creative self only for self-reports and when creativity is measured via a subjective evaluation of creativity level. The interpretation of the results should take the overlap of these constructs and possible bias of the self-reports into account. Additionally, different measures of creativity might assess different aspects of creativity that are differently associated with the creative self. As expected, the obtained relationships are greater when constructs are measured via the same method.

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Keywords: personality, creativity, creative self, a capella singers.

Učenje napamet suvremenog glazbenog djela: utjecaj formalne strukture, pijanističine segmentacije i tehničke zahtjevnosti djela

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Teorijske osnove

Longitudinalne studije slučajeva pokazale su da se profesionalni glazbenici oslanjaju na formalnu strukturu glazbenih djela tijekom pripreme programa za javno izvođenje (npr. Chaffin i Logan, 2006). Namjerno i cilju usmjereno kodiranje notnog teksta u terminima formalne strukture razvija se u funkciji ekspertnosti (Williamon i Egner, 2004). Novija istraživanja pokazala su da glazbenici koriste podjednake strategije učenja napamet kod uvježbavanja tradicionalnog i suvremenog repertoara (Chueke i Chaffin, 2016).

Ciljevi

Budući da su istraživanja u kojima su korištena djela suvremenog repertoara još uvijek malobrojna, ovo istraživanje provedeno je s ciljem ispitivanja procesa uvježbavanja suvremenog glazbenog djela za izvođenje na međunarodnom natjecanju mladih glazbenika.

Metoda

U istraživanju je sudjelovala pijanistica, učenica drugog razreda srednje glazbene škole. Tijekom jedne školske godine snimana su vježbanja Četvrte studije za klavir (*Allegro Vivace*) Borisa Papandopula. Trideset tri snimke vježbanja prosječnog trajanja od 30 minuta transkribirane su i analizirane s obzirom na 5 faza vježbanja: čitanje notnog teksta, uvježbavanje cjeline, učvršćivanje fluentnosti, učenje napamet i usavršavanje.

Rezultati

Regresijske analize provedene su s ciljem ispitivanja efekata formalne strukture i dodatne pijanističine segmentacije djela povrh formalne strukture, te tehničke zahtjevnosti djela na količinu vježbanja u pet faza vježbanja. Prediktori (formalna struktura, pijanističina dodatna segmentacija djela, tehnička zahtjevnost) su zajednički objasnili između 10% i 43% varijance količine vježbanja (odnosno, broja početaka, repeticija i završetaka). Analize su pokazale da su segmenti vježbanja češće započinjali i/ili završavali strukturalno važnim taktovima te taktovima označenima u pijanističkoj segmentaciji. Pritom je doprinos pijanističine segmentacije bio veći od doprinosa formalne strukture u prve tri faze vježbanja. Nadalje, strukturalno važni taktovi u svim su fazama vježbanja češće ponavljani, dok su taktovi označeni u pijanističkoj segmentaciji češće ponavljani samo u fazama uvježbavanja cjeline i učvršćivanja fluentnosti. Ključan doprinos u objašnjenju repeticija predstavlja tehnička zahtjevnost, dok je ista značajan doprinos kod početaka samo u prve dvije faze vježbanja. Navedeni rezultati sugeriraju da je pijanistica koristila ponavljanje kao strategiju vježbanja tijekom cijelog procesa vježbanja.

Zaključci

Ovo je istraživanje pokazalo da je pijanistica vježbanje primarno temeljila na vlastitoj segmentaciji suvremenog glazbenog djela. Efekti formalne strukture također su uočeni, no kako bi mladi pijanisti profitirali od korištenja formalne strukture u većoj mjeri, potrebno je eksplicitno pou-

čavanje o doprinosima namjernog i cilju usmjerenog kodiranja notnog teksta u terminima formalne strukture djela kako bi ona mogla postati pouzdana shema za doziv tijekom izvođenja napamet.

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Ključne riječi: vježbanje suvremenog klavirskog djela, učenje napamet, formalna struktura, segmentacija, tehnička zahtjevnost.

Memorizing the contemporary piano piece of music: the effects of the formal structure, pianist's segmentation and technical difficulties

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Background

Longitudinal case studies have shown that professional pianists rely on the formal structure of the piece of music when preparing for performance (e.g. Chaffin & Logan, 2006). Deliberate encoding of music scores in terms of the formal structure develops as a function of expertise (Williamon & Egner, 2004). Recent studies have shown that when memorizing contemporary pieces, musicians use the same strategies as when memorizing pieces of the traditional repertoire (Chueke & Chaffin, 2016).

Aims

Since only a few studies examined memorizing contemporary pieces, the aim of this study was to examine the process of preparing a contemporary piece for performing at the international competition for young musicians.

Method

The pianist, a second-year student at the music high school, had recorded her practice of the Fourth Study for Piano (*Allegro Vivace*) by Boris Papandopulo during one school year. Thirty-three recorded practice sessions (of average duration of 30 minutes) were transcribed and analyzed with regards to 5 learning periods: section-by-section, practicing the whole, tightening fluency, memorization and polishing.

Results

Regression analyses were performed in order to investigate the effects of the formal structure, the pianist's segmentation of the piece in addition to the formal structure, and technical difficulties on the amount of practicing in five learning periods. The predictors (the formal structure, the pianist's segmentation, and technical difficulties) together accounted for 10% to 43% of the variation in the amount of practicing (that is, starts, repetitions, and stops). The analyses showed that the practice segments started and/or stopped more often on structural bars and on bars marked by the pianist herself. The contribution of the pianist's segmentation was greater than that of the formal structure in the first three learning periods. Furthermore, structural bars were repeated more often during the whole process of practicing, while the bars marked by the pianist were repeated more often only when practicing the whole and tightening fluency. Technical difficulty affected repetitions in each learning period and starts in the first two learning periods. These results suggest that repeating was used as the main practice strategy.

Conclusions

This study showed that the pianist primarily used her own segmentation to organize her practice. Although the effects of the formal structure were also observed, detailed explicit instruction about the usefulness of deliberate encoding of the piece of music with regards to its formal structure would be needed in order for the young pianists to gain benefits from the use of the formal structure as a reliable retrieval scheme.

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Keywords: practicing contemporary piano music, memorizing, formal structure, pianist's segmentation, technical demands.

Principi *anticipacije* i *ciklusa pokreta* primenjeni na telesne gestove pijanista u delima za klavirski duo brazilskih kompozitora

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Teorijske osnove

Ova prezentacija je rezultat istraživanja i analize telesnih pokreta dvojice pijanista tokom izvođenja segmenata kompozicija za klavir u četiri ruke brazilskih kompozitora. Cilj ovog istraživanja je bolja integracija izvođača i optimizacija njihovog muzičkog izvođenja. Uobičajeno je da pre zajedničkih proba pijanisti proučavaju svoje delove odvojeno, individualno rešavajući tehničke probleme, često bez složenih gestova koje zahteva interakcija tokom zajedničkog izvođenja (Williamon & Davidson, 2002). Ovo istraživanje je bazirano na principima *anticipacije* (Schmidt & Lee, 2014; Póvoas & Barros, 2017) i *ciklusa pokreta* (Póvoas, 1999, 2006), a sa stanovišta integracije gestova koja se posmatra kao tehnički i strateški resurs za prepoznavanje i ovladavanje kontrolom kretanja tokom građenja muzičke interpretacije, a u cilju poboljšanja efekata melodijskog i ritmičkog materijala kompozicije, te izražajnosti (Van Zijl & Sloboda, 2011; Juslin, 2003).

Ciljevi

Birajući ostvarenja brazilskih kompozitora, nameravali smo da istražimo raznoliki repertoar za klavirski duo ukazujući na odlike klavirskog pisma, određene ritmičko-melodijske specifičnosti, uglavnom igrackog karaktera, koje su praćene specifičnim interpretativnim mogućnostima. U cilju optimizacije muzičkog izvođenja identifikovani su elementi povezani sa implementacijom *ciklusa pokreta* i *anticipacije* gestova, uzimajući u obzir i zvučne efekte koji su povezani sa specifičnim karakteristikama muzike.

Metod

Interpretativne strategije 'vođenja zvuka' su primenjene na praksu klavirskog dua i kvalitativno analizirane uzimajući u obzir anticipiranu putanju gestova (pokreti šaka i ruku) u određenim odlomcima komada za klavir u četiri ruke brazilskih kompozitora Osvalda Laçerda i Akacia Piedade.

Rezultati

Uočeno je da praksa predloženih strategija poboljšava izvođenje određenih muzičkih segmenata. Čak i kada se u obzir uzme variranje, pokazalo se da primena strategije anticipiranja gestova, u muzičkim segmentima koji to dozvoljavaju, može da skрати vremenski period međusobnog prilagođavanja izvođača.

Zaključci

Istraživanje prakse klavirskog dua je u razvojnoj fazi, a dalji rad na ovoj temi mogao bi da doprinese optimizaciji izvođenja muzike u ovakvom izvođačkom sastavu. Izvođačka praksa bi postala efikasnija, što bi se pozitivno odrazilo i na opštu izvođačku praksu pijanista.

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Keywords: anticipacija, ciklus pokreta, gestovi pijaniste, repertoar za klavirski duo, brazilska muzika.

Principles of the *anticipation* and *movement cycles* applied to piano gestures in the repertoire for piano four hands by Brazilian composers

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Background

This presentation is a result of a research that examined and analyzed piano gestures and movements used by two pianists during their practice of musical excerpts from Brazilian repertoire for piano four hands, purposing for better integration between the instrumentalists and optimization of their musical performance. Usually, before working together, pianists study their parts separately, individually solving technical musical issues, often without providing more complex gestures required in duo performance interaction (Williamon & Davidson, 2002). The research is based on Principles of Anticipation (Schmidt & Lee, 2014; Póvoas & Barros, 2017) and Movement Cycles (Póvoas, 1999, 2006), from the point of view of integration of gestures, presented as technical and strategic resources for recognition and acquisition of motion control to be used in building up the musical interpretation, aiming to enhance the effects of melodic and rhythmic materials of the pieces, and their expressiveness (Van Zijl & Sloboda, 2011; Juslin, 2003).

Aims

Adding to the performance of the Brazilian pieces, we intended to investigate compositions that bring to the practice-wide repertoire for this formation, showing aspects of the piano writing, and rhythmic-melodic specific characteristics in some of the works, mostly dances, accompanied by specific interpretative options. In this context, for the purpose of optimizing the impact of

musical performance, it adds up to the objectives related to the implementation of Movement Cycles and Anticipation of Gestures identification of these elements, considering the sound effects linked to specific musical characteristics.

Method

Sound-conducting interpretive strategies are applied in the piano practice of one duo and qualitatively analyzed taking into account the anticipated trajectory of gestures (hand and arm movements) in some excerpts of pieces for piano four hands by Brazilian composers Osvaldo Lacerda and Acácio Piedade.

Results

It was observed that the practice of proposed strategies in a certain music excerpts makes possible to enhance performance. It is understood that even considering variability, the application of the individual practice with anticipating gestures, when they are appropriate for musical achievement in duo in the actual situation of performance, can shorten the adjustment period between instrumentalists.

Conclusions

Investigating the practice of piano duo is a developing research field, and work on this topic could contribute to the optimization of musical performance in this musical formation and in its expressiveness and in such a way to help towards a more efficient instrumental practice, reflecting at the overall piano performance optimization.

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Keywords: anticipation, movements cycle, piano gesture, piano four hands repertoire, Brazilian music.

Analiziranje telesnih pokreta kod solo flautista od čitanja s lista do izvođenja

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Teorijske osnove

Muzičari usvajaju fizičke veštine razvijanjem mentalnih reprezentacija koje prevode informacije u izvedenu akciju, a koje se jačaju vežbanjem i vremenom postaju integrisane u pamćenje (Davidson 2012a). Telesni pokreti kod izvođenja značajno se razlikuju između instrumentalista i pevača, solista i izvođača u ansamblima, između različitih kultura, praksi izvođenja i ekspertize izvođača (Davidson, 2012b). Primarna razlika u pokretima tela između instrumentalista i pevača je u tome što svirači rukuju 'spoljašnjim' instrumentom, što zahteva dodatne telesne pokrete prilikom izvođenja. Među instrumentalistima postoje dalje razlike – flautista koristi svoje telo na drugačiji način od tromboniste. Maurer, Dejvidson i Kraus (Maurer, Davidson & Krause, 2018) identifikovali su mali repertoar često korišćenih telesnih pokreta među flautistima prilikom solističkog izvođenja. Međutim, nijedno istraživanje nije sistematično ispitalo razvoj telesnih pokreta od prvog učenja komada do njegovog finalnog izvođenja.

Ciljevi

Ovo istraživanje ima za cilj da preispita razvoj telesnih pokreta od čitanja s lista, preko vežbanja pa sve do finalnog izvođenja muzike za solo flautu, bilo sa standardnom notacijom ili sa proširenom tehnikom.

Metod

Trinaest naprednih flautista je spremalo isti komad za solo flautu; osam flautista je izvodilo komad kako je originalno komponovan (sa standardnom notacijom), a pet flautista je sviralo komad sa proširenom tehnikom (na primer, sa perkusivnom artikulacijom, kontinuiranom promenom intonacije pokretima ambažure /glisando proizveden usnama, eng. *note bending*/, glisandima). Flautisti su čitali s lista, vežbali, a zatim i izvodili komad pet puta, sa jednom verzijom koja je odabrana kao željeni 'uzorak izvođenja'. Nakon izvođenja, učesnici su gledali video-snimak svog izabranog 'uzorka izvođenja' i davali kritičku samoprocenu sve četiri kategorije Labanove analize pokreta. Telo, Napor, Oblik i Prostor – korišćeni su za identifikovanje obrazaca, putanja, oblika i kvaliteta telesnih pokreta koje su proizvodili flautisti. U sprezi sa objektivnom Labanovom analizom pokreta, kvalitativni podaci prikupljeni na osnovu kritičke samoprocene podvrgnuti su kodiranju analize sadržaja kako bi omogućili dalje individualizovano ispitivanje telesnih pokreta svakog izvođača.

Rezultati

Analiza koja je u toku otkriva sličnosti među ispitanicima u kategorijama Telo – Prebacivanje težine i Kroslateralna telesna organizacija, Napor – Stanja, Oblik – Tok oblika, Prostor – Dijagonalno prostorno privlačenje. Razlike između ispitanika su bile uglavnom u kategorijama: Telo – Držanje, Napor – Fraziranje napora i Prostor – Prostorne putanje i tenzije. Kritička samoprocena je istakla manjak svesnosti o telesnim pokretima i držanju 8 ispitanika, što je dovelo do

* Dobitnica SEMPRESKE nagrade.

negativne reakcije kada su pregledali snimak izvođenja i razliku između veličine i obima pokreta koje su sami opažali tokom izvođenja i onih koje su zapazili prilikom gledanja snimka.

Zaključak

Analiza telesnih pokreta prilikom izvođenja ima potencijal da doprinese novim znanjima i u praktičnom i u akademskom kontekstu. Nastavnici flaute i profesionalni izvođači mogu puno da dobiju iz veće svesnosti o telesnim pokretima prilikom izvođenja i da time pomognu mlađim studentima da razumeju muzičko fraziranje kroz fizička telesna iskustva, kao i da omoguće bolju komunikaciju između izvođača i publike. Trenutni nalazi doveli su do razvoja intervencija i re-kuperativnih vežbi, preuzetih i prilagođenih iz Labanove analize pokreta i Bartenifovih osnova, posebno osmišljenih za fizičku dobrobit flautista.

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Ključne reči: Labanova analiza pokreta, izvođenje, pokret, flauta.

Analyzing body movements of solo flautists from sight-reading to performance

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Background

Musicians acquire physical skills by developing mental representations that translate information into performed action which are strengthened through practice and become integrated into memory over time (Davidson 2012a). Body movements in performance differ greatly between instrumentalists and vocalists, soloists and ensembles, cultures, performance-practice, and expertise of the performer (Davidson, 2012b). The primary difference between body movements of instrumentalists and vocalists is that the former physically manipulate an external instrument, and thus require additional body movements in performance. Within instrumentalists, there are further differences – a flautist uses their body differently to a trombonist. Maurer, Davidson & Krause (2018) identified a small repertoire of commonly used body movements amongst flute players in solo performance. However, no systematic research has examined the development of body movements from first learning a piece to its final performance.

* SEMPRES Award participant.

Aims

This research aimed to examine the development of body movements from sight-reading, through practicing, to the final performance of solo flute music with either standard notation or extended techniques.

Method

Thirteen advanced flautists were given the same solo flute piece; eight flautists played the piece as originally composed (with standard notation), and five flautists played the piece with added extended techniques (for example, percussive articulations, note bends, and glissandi). The flautists sight-read practiced, and performed the piece five times, with one rendition selected as the preferred 'performance take'. Following their performance, participants watched a video recording of their preferred 'performance take' to carry out a self-critique. All four categories of Laban Movement Analysis – Body, Effort, Shape, and Space – were used to identify the patterns, pathways, forms, and qualities of body movement generated by the flautists. In conjunction with the objective Laban Movement Analysis, qualitative data collected from the self-critique sessions were subjected to content analysis coding to provide further individualized examinations of each performer's body movements.

Results

Ongoing analyses reveal similarities across participants in the categories of Body – Weight Shift and Cross Lateral Body Organization, Effort – States, Shape – Shape Flow, Space – Diagonal Spatial Pulls. Differences between participants were apparent mostly in the categories of Body – Posture, Effort – Effort Phrasing, and Space – Spatial Pathways and Tensions. The self-critique session highlighted a lack of self-awareness of body movements and postures of eight participants, which led to negative reactions when reviewing their performance video and a disparity between the size and range of movements which were perceived versus those observed.

Conclusions

Analysis of body movement in performance has the potential to contribute new knowledge in both practical and academic contexts. Flute teachers and performers can benefit from a greater self-awareness of body movements in performance; thus, helping younger students to understand musical phrasing through physical bodily experience and enabling better communication between performer and audience. The current findings prompted the development of interventional and recuperative exercises, adapted from Laban Movement Analysis and Bartenieff Fundamentals, designed specifically for the physical wellbeing of flautists.

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Keywords: Laban movement analysis, performance, movement, flute.

Aleksander tehnika: evaluacija efekata posturalnog optimuma za muzičke izvođače

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Teorijske osnove

Psihofizički metod poznat pod nazivom Aleksander tehnika (AT) ima za cilj oslobađanje nepotrebne mišćne tenzije i izmene pogrešnih, nekorisnih šema pokreta kroz namernu inhibiciju navika u ponašanju. Teoretsku bazu našeg istraživanja čine prethodni nalazi o primenljivosti AT-a u službi muzičkog izvođenja u polju telesnog držanja, na fiziološkom planu, kao i u ponašanju (Valentine, 2004; Little, 2008; Holladay, 2012; Klaine, Bayard, & Wolf, 2014; Jović, 2014).

Ciljevi

Cilj ovog eksplorativnog, pilot istraživanja je bila evaluacija razlika pre i posle primene Aleksander tehnike u polju muzičkog izvođenja. Praćene su i merene promene u telesnom držanju kao potpori za muzičko izvođenje, kroz promenu određenih aspekata telesnog ponašanja, nakon primene osnovnih principa AT-a (primarna kontrola, balans, inhibicija i usmerenja). Praćeni su i sledeći parametri muzičkog izvođenja: tonski i tehnički kvalitet, muzička izražajnost i spremnost za javni nastup.

Metod

Istraživanje je rađeno na uzorku od 14 studenata osnovnih akademskih studija Fakulteta muzičke umetnosti u Beogradu: 8 studenata sa izvođačkih i 6 studenata sa teorijskih odseka. Studenti iz prve grupe imali su po četiri individualna časa, dok su ispitanici iz druge grupe imali četiri grupne radionice Aleksander tehnike. Pet nezavisnih procenjivača procenjivalo je video snimke muzičkog izvođenja studenata, snimljenih pre i nakon časova/radionica, nemajući uvid u to kada su oni snimljeni. Svoju procenu, na Likertovoj skali od 1 do 5, beležili su u protokol koji je sadržao po tri parametra za svaki princip AT (ukupno 12), kao procenu izvođenja po muzičkim parametrima izvođenja (tonski i tehnički kvalitet, muzička izražajnost i spremnost za javni nastup), takođe na skali od 1–5. Procena je izvršena bez saznanja da li su ispitanici imali individualne časove ili grupne AT radionice.

Rezultati

Kod obe grupe ispitanika zapaža se statistički značajna promena svih merenih parametara koji se odnose na primenjene principe Aleksander tehnike: 1) *primarna kontrola*, merena nivoom uspostavljenog posturalnog optimuma ($\chi^2(2) = 10.37, p = .006$); 2) *balans*, ili koordinacija ($\chi^2(4) = 3.5, p = .478$); 3) *usmerenja* – mera kvaliteta pokreta ($\chi^2(4) = 14.00, p = .007$) i 4) *inhibicija* sagledana kroz spremnost za javni nastup ($\chi^2(4) = 14.13, p = .007$). Zabeležili smo i unapređenje svih analiziranih muzičkih parametara (tonski i tehnički kvalitet, spremnost za javni nastup) sa statistički značajnom razlikom kada je muzička izražajnost u pitanju ($\chi^2(4) = 9.60, p = .048$).

Zaključci

Rezultati ukazuju da praktična primena Aleksander tehnike u službi muzičkog izvođenja može doprineti uspostavljanju posturalnog optimuma neophodnog za muzičko izvođenje. Zaključujemo da bi stavljena u službu svrsishodne, planski osmišljene aktivnosti da podrži muzičko izvođenje, njena primena imala uticaj na važne aspekte muzičke interpretacije.

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Ključne reči: Aleksander tehnika, muzički izvođači, muzičko izvođenje, posturalni optimum, muzička izražajnost.

Alexander technique: Evaluation of the effects of postural optimum for musicians

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Background

The Alexander Technique (AT), as a psycho-physical method, offers a tool for individuals to release unnecessary muscle tension and re-educate non-beneficial movement patterns through intentional inhibition of habitual behaviors. The theoretical base of our research lies on earlier findings about the application of Alexander Technique related to music performance in the field of postural, physiological and behavioral approach (Valentine, 2004; Little, 2008; Holladay, 2012; Klaine, Bayard, & Wolf, 2014; Jović, 2014).

Aims

The aim of this exploratory research was to evaluate differences before and after the application of the Alexander Technique in the field of musical performance. We observed and measured changes in postural support for musical performance through the certain aspects of the physical behavior of the participants according to applied four principles of AT (primary control, balance, inhibition and directions), as well as parameters of musical performance.

Method

Participants in this pilot study were students of undergraduate studies at the Faculty of Music in Belgrade, fourteen of them: eight students from instrumental and six from theoretical departments. Students from the first group attended four individual lessons while the other attended group workshops of AT. The evaluation was done by five independent evaluators who were observing video recordings of musical performances of the participants, before and after AT classes, but not being aware of the moment recordings were made. Observers marked their assessment in the protocol consisted of three parameters for each AT principle (in total 12), at the Likert 1–5 scale, as well as an assessment of music performance according to following parameters: tone and

technical quality, musical expressiveness and readiness for public performance (1–5). Observers made an evaluation without knowing whether students had individual or group AT lessons.

Results

Both groups made significant improvements in all measured parameters of the following applied aspects of Alexander Technique: 1) *primary control* measured by level of established postural optimum ($\chi^2(2) = 10.37, p = .006$); 2) *balance*, or coordination ($\chi^2(4) = 3.5, p = .478$); 3) *directions* – the measure of quality of movements ($\chi^2(4) = 14.00, p = .007$) and 4) *inhibition* related to readiness for public performances ($\chi^2(4) = 14.13, p = .007$). Also, there was tone and technical quality improvement, as well as an improvement in readiness for public performance with the statistically significant difference when it comes to musical expression ($\chi^2(4) = 9.60, p = .048$).

Conclusions

The findings indicate that the practical application of the Alexander technique in service of a musical performance can be used to achieve a postural optimum necessary for musical performance. We have concluded that if we put the Alexander Technique in service of planned activity that contributes to the quality of musical performance, its application would have an impact on important aspects of musical interpretation.

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Keywords: Alexander technique, musicians, music performance, postural optimum, musical expressiveness.

Tematska sesija 6

PSIHOLOGIJA I MUZIČKO OBRAZOVANJE

Thematic Session 6

PSYCHOLOGY AND MUSIC EDUCATION

Kako se pristupi vežbanju i iskustva u vežbanju instrumentalne muzike razlikuju kod studenata muzičke akademije sa niskim i visokim postignućima

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Teorijske osnove

Samoregulativno učenje postaje jedan od glavnih okvira muzičkog vežbanja danas (McPherson & Zimmerman, 2011). Ono nudi odličnu integraciju različitih aspekata muzičkog učenja. Međutim, još uvek nedostaju istraživanja u nekim oblastima. Dok se kognitivni i bihevioralni aspekti vežbanja često ispituju, istraživanja o motivacionim i naročito afektivnim aspektima jesu retka (McPherson, Osborne, Evans & Miksza, 2019).

Ciljevi

Cilj naše istraživačke studije jeste da obuhvati kognitivne i bihevioralne, kao i konativne i afektivne aspekte vežbanja, onako kako ih studenti klavira percipiraju. Osim toga, želeli smo da uporedimo ove percepcije i iskustva pijanista koji pohađaju muzičku akademiju sa visokim i, sa druge strane, sa niskim postignućima. Baza za ovo poređenje bio je Pintrihov (Pintrich, 2000) model samoregulativnog učenja, Perkinov (Perkun, 2000) model akademskih emocija i Eliotov i Mek Gregorijev (Elliot and McGregor, 2001) metod '2x2 postignuće cilja'.

Metod

Ispitanici su izabrani na osnovu njihovih postignuća (godina studija, brojnost nastupa i takmičenja). Formirane su dve grupe: studenti klavira sa visokim ($N = 6$) i niskim ($N = 6$) postignućem. Njima su postavljene dve grupe pitanja, koja su u vezi sa kognitivno-bihevioralnim aspektima (KB) i motivaciono-afektivnim aspektima (MA) vežbanja. Podaci su prikupljeni *online*, uz korišćenje metode mapiranja koncepta (Trochim, 1988). Dve grupe ispitanika su odgovarale na odvojenim *google spreadsheets*, na takav način da su pijanisti mogli da vide odgovore drugih ispitanika u svojoj grupi (dok su istovremeno ispitanici ostajali anonimni). Prateći standardnu proceduru, ispitanici su sami kategorizovali odgovore, a sličnosti među odgovorima poslužile su kao podaci za Vardovu hijerarhijsku klaster analizu (Kane & Trochim, 2013).

Rezultati

Klasteri u vezi sa KB aspektima vežbanja pokrili su tehničke interpretativne i organizacione aspekte, kao i neke druge. Grupa sa visokim učinkom pokazala je veći fokus na interpretativne, a grupa sa niskim postignućima na organizacione aspekte. Većina iskaza u obe grupe reflektuje specifične kognitivne strategije, kao što su upotreba različitih tempa i ritmova, mentalnog vežbanja i isprobavanja teških odlomaka. Klasteri koji su u vezi sa MA aspektima upućuju na emocije, faktore koji utiču na motivaciju i njenu regulaciju. Grupa studenata sa visokim postignućima češće je navodila orijentaciju ovladavanja i pozitivne emocije nego grupa studenata sa niskim postignućima. Druga grupa je uglavnom navodila orijentaciju ka postignuću izvođačkih ciljeva i negativne emocije, kao i faktore koji umanjuju njihovu motivaciju.

* Dobitnica SEMPRESKE nagrade.

Zaključci

Dok su navedene kognitivne strategije bile relativno slične, čini se da su se grupe fokusirale na neznatno različite aspekte vežbanja. Veće razlike su nađene u domenu MA aspekata, što sugerira činjenicu da iako studenti sa visokim i niskim postignućima mogu razumeti vežbanje i pristupati vežbanju na sličan način, njihovo iskustvo i motivacija koji stoje iza toga su različiti.

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Ključne reči: studenti muzike sa visokim postignućima, emocije, vežbanje instrumenta, motivacija, strategije vežbanja, samoreglativno učenje.

How do the approaches and experiences of instrumental music practice differ in high and low achieving music academy students

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Background

Self-regulated learning is becoming one of the main frameworks in which music practice is addressed today (McPherson & Zimmerman, 2011). It offers good integration of different aspects of music learning, but research is still lacking in some areas. While cognitive and behavioural aspects of practice are frequently explored, research on motivational and especially affective aspects is sparse (McPherson, Osborne, Evans & Miksza, 2019).

Aims

The aim of our exploratory study was to capture cognitive and behavioural, as well as conative and affective aspects of practice as piano students perceive them. Furthermore, we wanted to compare these perceptions and experiences between high- and low-achieving pianists attending music academy. The framework for this comparison was Pintrich's (2000) model of self-regulated learning, Pekrun's (2000) model of academic emotions and Elliot's and McGregor's (2001) 2x2 achievement goal framework.

* SEMPRE Award participant.

Method

Participants were chosen on the basis of their achievements (grades, number of performances and competitions). Two groups of high- ($N = 6$) and low-achieving ($N = 6$) piano students were formed. They were presented with two sets of questions, related to cognitive-behavioural aspects (CB) and to motivational-affective aspects (MA) of practice. Data were gathered online using concept mapping (Trochim, 1988). The two groups answered questions in two separate google spreadsheets so that the pianists could also see the answers from the other participants in their group (while remaining anonymous). Following the standard procedure, participants categorized the answers themselves and proximities between the items served as input for Ward's hierarchical cluster analysis (Kane & Trochim, 2013).

Results

The clusters on CB aspects of practice covered technical interpretative and organizational aspects as well as some others. The high-achieving group displayed a stronger focus on the interpretative and low-achieving group on organizational aspects. Majority of the statements in both groups reflected specific cognitive strategies, such as varying tempo and rhythm, mental practice and rehearsal of difficult parts. The clusters pertaining to MA aspects covered emotions, factors that influence motivation and its regulation. The high-achieving group reported mastery goal orientation and positive emotion more often than the low-achieving one. The latter mostly reported performance goal orientation and focused on negative emotion and factors that lower their motivation.

Conclusions

While the reported cognitive strategies were relatively similar, the groups did seem to focus on slightly different aspects of practice. Larger differences were found in regard with MA aspects, suggesting that although the high- and the low-achieving students might understand and approach practice in a similar way, their experience of it and motivation behind it is different.

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Keywords: advanced music students, emotion, instrumental practice, motivation, practice strategies, self-regulated learning.

Obrazovne preferencije muzički darovitih

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Teorijske osnove

Približno jedna četvrtina studenata Fakulteta muzičke umetnosti u Beogradu smatra da je njihov talenat u potpunosti ili u velikoj meri ostvaren, što može implicirati da naš obrazovni sistem ne zadovoljava obrazovne potrebe velikog dela muzički darovitih studenata (Bogunović, Dubljević i Buden, 2012) i otvara pitanje kako modifikovati nastavni proces ne bi li im se izašlo u susret. Smatrajući da deo odgovora na postavljeno pitanje mogu dati sami daroviti, pitali smo ih o čemu, na koji način i u kojim uslovima vole da uče, kao i na koji način žele da demonstriraju naučeno (Kanevsky, 2011a, 2011b).

Ciljevi

Istraživanjem smo imale nameru da utvrdimo da li postoje razlike u obrazovnim preferencijama učenika srednjih muzičkih škola i studenata muzike i da proverimo latentnu strukturu instrumenta korišćenog za prikupljanje podataka o obrazovnim preferencijama.

Metod

U ovom pilot-istraživanju, adaptirana verzija upitnika Mogućnosti za učenje – Verzija 3b (Kanevsky, 2011b) zadata je prigodnom uzorku od 136 ispitanika (55 učenika tri srednje muzičke škole iz Beograda i 81 student Fakulteta muzičke umetnosti, Univerziteta umetnosti u Beogradu). Glavne metode analize prikupljenih podataka predstavljaju *t*-test za nezavisne uzorke i analiza glavnih komponenta (PCA).

Rezultati

Statistički značajne razlike u prosečnim odgovorima grupa na pojedinačnim stavkama pokazuju da učenici srednjih škola, u većoj meri od studenata, vole da profesor odluči na koji način je potrebno demonstrirati znanje, $t(133) = 2.240, p = .027$, dok studenti u većoj meri od učenika srednjih škola vole da biraju partnera za učenje/sviranje, $t(133) = -2.416, p = .017$, da van fakulteta stiču muzička iskustva, $t(133) = -2.889, p = .005$, da putem interneta istražuju o muzičkim temama, $t(133) = -2.252, p = .026$, da uviđaju povezanost između tema/ideja $t(133) = -2.174, p = .008$, ali i da saznaju o osećanjima drugih, $t(132) = -2.366, p = .019$. Prikazani nalazi ukazuju da su srednjoškolci u većoj meri usmereni na nastavnika, a da studenti teže preuzimanju inicijative i dubljem razumevanju sadržaja.

Pri proveru latentne strukture korišćenog upitnika, stabilnije rešenje dobijeno je kada je uzorku pripojen poduzorak od 39 likovno darovitih studenata. Analiza glavnih komponenta sprovedena je na 64 stavke pri ortogonalnoj rotaciji (Varimax). Prema Kajzer-Majer-Olkinovoj meri adekvatnosti uzorka, $KMO = .808$, i Bartletovom testu sferičnosti, $\chi^2(2016) = 6039.663, p = .000$, bilo je primereno sprovesti ovu analizu (Filed, 2009). Analiza glavnih komponenta ukazala je na moguće rešenje od pet komponenta koje zajedno objašnjavaju 42.892% varijanse. Ajtemi koji se grupišu na istoj komponenti ukazuju da prva komponenta predstavlja usmerenost na proces sticanja znanja, da druga komponenta predstavlja mentorstvo, treća samostalnost, četvrta kooperativnost, a da peta komponenta predstavlja usmerenost na ishod. Kosom rotacijom (Oblimin) uočene su korelacije druge komponente (mentorstvo) sa svim ostalim komponentama, što govori da nije reč o nezavisnoj komponenti.

Zaključci

Kako nalazi dobijeni analizom glavnih komponenata ukazuju na moguću latentnu strukturu adaptiranog upitnika, uzevši u obzir potencijalnu pedagošku vrednost dobijenog rešenja i mogućnost primene inventara u procesu individualizacije nastave, opisano rešenje biće provereno na većem uzorku muzički i likovno darovitih ispitanika.

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Ključne reči: muzička darovitost, obrazovne preferencije, upitnik Mogućnosti za učenje (adaptiran), latentna struktura.

Learning preferences of the musically gifted

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Background

Around one-quarter of students from Faculty of Music in Belgrade consider their talent as fully or largely realized, which can imply that our country's educational system does not meet the learning needs of the big part of musically gifted students (Bogunović, Dubljević, & Buden, 2012), and raises a question – how to modify the teaching process in order to respond adequately to musically gifted students and pupils? Believing that gifted themselves can provide a part of the answer to the question posed, we have asked them what they like to learn, in which ways and settings, and how they would like to demonstrate their learning (Kanevsky, 2011a, 2011b).

Aims

With this research we intended to test for differences in learning preferences of secondary music school students and university students of music and to examine the latent structure of the instrument used to collect data on learning preferences.

Method

In this pilot survey, an adapted version of the Possibilities for Learning – Version 3b questionnaire (Kanevsky, 2011b) was administered to a convenience sample of 136 respondents (55 students of three secondary music schools from Belgrade, and 81 students of the Faculty of Music, University of Arts in Belgrade). The independent *t*-test and principal component analysis (PCA) represents the main data analysis procedures.

Results

Statistically significant differences in groups' means on individual items show that secondary school students, in greater extent than university students, like that their teacher decide how they should demonstrate their knowledge, $t(133) = 2.240, p = .027$, while university students in greater extent than secondary school students like to get to choose their learning/playing partner, $t(133) = -2.416, p = .017$, to gain musical experiences outside of the faculty, $t(133) = -2.889, p = .005$, to use the internet for researching on music topics, $t(133) = -2.252, p = .026$, to understand the connection between topics/ideas, $t(133) = -2.174, p = .008$, and also to know about other people's feelings, $t(132) = -2.366, p = .019$. The presented findings indicate that secondary school students are more teacher-oriented and that university students tend to take the initiative and to obtain a deeper understanding of the studied content.

Examining the latent structure of the questionnaire used, a more stable solution was obtained when a subsample of 39 artistically gifted students was incorporated into our sample. PCA with orthogonal rotation (Varimax) was conducted on 64 items. Based on Kaiser–Meyer–Olkin measure of sampling adequacy, $KMO = .808$, and Bartlett's test of sphericity, $\chi^2(2016) = 6039.663, p = .000$, it was suitable to conduct the analysis (Filed, 2009). PCA outlined a possible solution of five components which in combination explained 42.892% of the variance. Items that cluster on the same components suggest that component 1 represents focus on the process of knowledge acquisition, component 2 mentorship, component 3 independence, component 4 cooperativeness, and component 5 represents focus on the outcome. After using the oblique rotation (Oblimin) we have observed component 2 correlation with all the other components, which implies that mentorship is not an independent component.

Conclusions

As the findings obtained by PCA outline the possible latent structure of the adapted questionnaire, considering the potential pedagogical value of the solution obtained and the possibility of using the questionnaire in the individualization process, the described solution will be tested on a larger sample of musically and artistically gifted respondents.

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Keywords: learning preferences, musical giftedness, Possibilities for Learning questionnaire (adapted), latent structure.

Deca sa potrebom za dodatnom podrškom u specijalizovanom muzičkom obrazovanju

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Teorijske osnove

Značajan aspekt inkluzivnog obrazovanja jeste individualizovani pristup razvoju podržavajućeg i prihvatajućeg školskog okruženja za svakog učenika. Istraživanja ukazuju da individualizovana obrazovna podrška doprinosi napredovanju učenika kojima je potrebna dodatna podrška (PDP), a posebno integraciji u vršnjačku grupu, samopoštovanju i redovnijem pohađanju nastave. Pored toga, timsko planiranje i pružanje obrazovne podrške doprinosi razvoju saradnje između roditelja i škole (Kovač-Cerović, Jovanović, & Pavlović Babić, 2016; Friedman, Pavlović Babić, & Simić, 2015). Kvalitet individualizovane obrazovne podrške u Srbiji je do sada bio istraživano prvenstveno u osnovnom obrazovanju, dok istraživanja u specijalizovanim školama, kakve su muzičke škole za sada izostaju.

Ciljevi

Cilj istraživanja je da ispita kvalitet i ishode individualizovane podrške učenicima sa potrebom za dodatnom podrškom (PDP) u muzičkom obrazovanju. Istraživačka pitanja su usmerena na ispitivanje (a) dodatne podrške; (b) uključenosti roditelja; (c) ishoda na nivou učenika.

Metod

Polazeći od principa multiperspektivnosti, istraživanje je obuhvatilo perspektivu učenika sa PDP, njihovih roditelja, nastavnika i školskih psihologa. Upitnici koji se odnose na ishode na nivou učenika su adaptirani iz prethodnih studija inkluzivnog obrazovanja u Srbiji (Hrnjica, 2004; Kovač-Cerović et al., 2016), dok su upitnici koji se odnose na pružanje dodatne podrške i roditeljsko uključivanje razvijeni za potrebe ovog istraživanja. Namerni uzorak je uključio podatke o 19 PDP učenika, uzrasta od 8 do 18 godina, koji pohađaju muzičko obrazovanje i to o 12 učenika koji se obrazuju prema individualnom obrazovnom planu sa prilagođenim programom (IOP1), 2 učenika koji se obrazuju po individualnom obrazovnom planu sa izmenjenim programom (IOP2) i 5 učenika koji stiču individualizovano obrazovanje. Analiza je uključila deskriptivnu statistiku kvantitativnih podataka i analizu sadržaja odgovora na pitanja otvorenog tipa.

Rezultati

Roditelji ($M = 3.92$, $SD = 0.29$), kao i školski psiholozi ($M = 3.13$, $SD = 1.09$) procenjuju da muzičke aktivnosti značajno doprinose celokupnom razvoju učenika sa PDP. Dodatno, školski psiholozi ocenjuju da muzičke aktivnosti imaju različite doprinose u različitim domenima razvoja – od muzičkog domena ($M = 3.50$, $SD = 0.89$) do afektivnog domena ($M = 3.06$, $SD = 1.12$). Ovaj doprinos je procenjen kao nešto niži u slučaju učenika koji se obrazuju prema IOP2. Učenici sa PDP izveštavaju o visokom osećaju dobrobiti ($M = 3.42$, $SD = 0.41$), naglašavajući trud koji nastavnici ulažu da podrže njihovo učenje ($M = 4.0$, $SD = 0.0$). Najniže ocenjuju stavke koje se odnose na vršnjačku interakciju, kako u školi ($M = 2.77$, $SD = 1.09$), tako i van nje ($M = 2.5$, $SD = 1.0$). Takođe, nalazi ukazuju da je većina roditelja učenika sa PDP (73.7%) aktivno uključena u rad tima za pružanje dodatne podrške učeniku.

Zaključci

Nalazi opisuju muzičke škole kao okruženje koje neguje partnerski odnos sa roditeljima i koje pruža kvalitetnu podršku učenju većine učenika sa PDP. Istovremeno, nalazi ukazuju na potrebu za osnaživanjem zaposlenih u muzičkim školama da podrže interakciju učenika sa PDP sa vršnjacima.

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Ključne reči: inkluzivno obrazovanje, muzičko obrazovanje, individualni obrazovni plan.

Children with additional support needs in specialist music education

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Background

Education supporting inclusion requires an individualized approach to developing a stimulating and friendly school environment for each pupil. The findings suggest that individualized educational support contributes to additional support needs (ASN) students' progress, especially integration in peer-group, self-confidence and more regular attendance. Moreover, development and provision of individual educational support seem to nurture a partnership between parents and school (Kovač-Cerović, Jovanović, & Pavlović Babić, 2016; Friedman, Pavlović Babić, & Simić, 2015). The quality of individualized educational support in Serbia has so far been explored primarily in primary education, while quality and effects of individualized support to ASN students in specialized education, such as music education, is still lacking.

Aims

The study aims at exploring the process and outcomes of addressing ASN students within music education in Serbia. Research questions focused on (a) additional support; (b) parental involvement; (c) outcomes on ASN students.

Method

The research is focused on perceptions of ASN students, their parents, teachers and school psychologists. Questionnaires on outcomes of ASN students were adapted from the previous studies on inclusive education in Serbia (Hrnjica, 2004; Kovač-Cerović et al., 2016), while questionnaires related to the provision of additional support and parental involvement were developed for the purpose of the research. The purposeful sample comprises data on 19 ASN students, 8 to 18 years old, attending music education. Out of 19 ASN students, 12 students receive education according to individual education plan with adjusted curriculum (IEP1), 2 students according to individual education plan with the modified curriculum (IEP2) and 5 students receive individualized education. The analysis included descriptive statistics for quantitative data and content analysis of open-ended questions.

Results

Parents perceive that music education makes a significant contribution to the overall development of their child ($M = 3.92$, $SD = 0.29$). Similarly, school psychologists recognize contribution that music education has to child's development ($M = 3.13$, $SD = 1.09$), but stress that it has different impact across domains – from music domain ($M = 3.50$, $SD = 0.89$) to affective domain ($M = 3.06$, $SD = 1.12$). The contribution of music education to development is assessed as the poorest in the case of students receiving education according to IEP2. ASN students report on high wellbeing ($M = 3.42$, $SD = 0.41$), stressing effort teachers put to support their learning ($M = 4.0$, $SD = 0.0$). The items receiving the lowest ratings are related to peer interaction within ($M = 2.77$, $SD = 1.09$) and out of school ($M = 2.5$, $SD = 1.0$). Moreover, parents and school psychologists agree that the majority of parents of ASN children (73.7%) are actively engaged in the team supporting a child's education.

Conclusions

The findings portray music schools as an environment which nurtures partnership with parents and provides quality pedagogical support for the majority of ASN students. At the same time, support for social interaction of ASN students with their peers seems to be area in which music education is lagging behind.

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Keywords: inclusive education, music education, individual educational plan.

Značaj vizuelnog medijuma za unapređenje perceptivno-kognitivnih aspekata muzičkih sposobnosti učenika-nemuzičara

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Teorijske osnove

Sinergijsko dejstvo različitih modaliteta senzorne stimulacije učenika-nemuzičara u procesima analitičkog slušanja muzike i njegov značaj za dostizanje najvišeg stepena kognitivne obrade podataka – muzičke apercipije – predmet su brojnih kognitivno-psiholoških studija (Boltz, Ebendorf, & Field, 2009; Boal Palheiros & Wuytack, 2006; Shank, 2003). Opažanje strukture i forme muzičkog dela, kao najsloženijeg perceptivno-kognitivnog fenomena posredstvom koga je moguće uvideti smisao i značenje muzičkog dela (Clarke & Krumhansl, 1990), složen je zadatak koji se pred učenike osnovnoškolskog uzrasta postavlja. Imajući u vidu da je osnovni cilj muzičkog obrazovanja učenika intenziviranje muzičkog doživljaja, definiše se ključni problem: kako fokusirati učenikovu pažnju, na koji način, u celosti, aktivirati njegove perceptivno-kognitivne kapacitete, te kako otvoriti put suštinskom razumevanju muzičkog dela, odnosno muzičkoj apercipiji?

Ciljevi

Cilj rada jeste da ukaže na pozitivne efekte uključivanja vizuelnog medijuma u procese muzičke (a)percipije – kroz vizuelnu prezentaciju strukture muzičkog dela, odnosno pojedinačnih elemenata muzičkog izraza – te tako ukaže na povećanje perceptivno-kognitivnih muzičkih sposobnosti nemuzičara. Cilj rada fokusiran je i na razmatranje mogućnosti formiranja celovitog analitičko-metodičkog pristupa koji bi, na osnovu rezultata razmatranih eksplorativnih studija iz ove oblasti, obuhvatio sve perceptivno-kognitivne organizacijske nivoe muzičkog dela, a potom i na mogućnost njegovog implementiranja u sam nastavni proces.

Glavni doprinos

Glavni doprinos zasnovan je na sagledavanju višestruke dobrobiti simultanog iniciranja dva senzorna odgovora (vizuelnog i auditivnog) tokom procesa analitičkog slušanja muzike, čime je intenzitet ukupne senzacije uvećan, te se pretpostavlja da je nivo perceptivno-kognitivnih muzičkih sposobnosti viši (Shank, 2003). Uključivanje vizuelnog medijuma u nastavne sadržaje koji razvijaju analitičke muzičke sposobnosti učenika – muzičku (a)percipiju – može biti veoma važan pokazatelj unapređenja nastavne muzičke prakse u okvirima osnovnoškolskog muzičkog obrazovanja učenika, bez obzira na njihov starosni uzrast.

Implikacije

Sinergijsko dejstvo auditivnog i vizuelnog medijuma direktno uslovljava unapređenje analitičkih sposobnosti učenika-nemuzičara, njihovu sposobnost opažanja pojedinačnih elemenata muzičkog izraza te, aktiviranjem kognitivnih procesa muzičke pažnje i memorije, sposobnost struktuiranja podataka i njihovo integrisanje u 'celinu višeg reda' – muzičku formu. Takođe, sinergijsko dejstvo pomenutih medijuma omogućava direktno praćenje dramaturgije muzičkog dela, čime je intenziviran i sam muzički doživljaj učenika, odnosno ostvarena apercipija muzičkog dela. Učenikova sposobnost muzičke apercipije direktno će imati uticaja na njegov opšti kognitivni razvoj, odnosno razvoj svih njegovih intelektualnih potencijala (Hallam, 2010).

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Ključne reči: analitičko slušanje muzike, muzička forma, muzička (a)percepcija, vizuelni medijum, nemuzičari.

The importance of visual medium for the improvement of the perceptive-cognitive aspects of musical abilities in non-musician pupils

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Background

The synergic effect of different modalities of the sensor stimulation of non-musician pupils in the processes of the analytical listening to music and its importance for reaching the highest level of the cognitive data processing – musical apperception – are the subject of numerous cognitive-psychological studies (Boltz, Ebendorf, & Field, 2009; Boal Palheiros & Wuytack, 2006; Shank, 2003). The perception of the musical structure and musical form, as the most complex perceptive-cognitive phenomenon by which it is possible to comprehend the sense and importance of a musical piece (Clarke & Krumhansl, 1990), is a complex task which is set in front of the primary school pupils. Having in mind that the main aim of general musical education is the intensifying of a musical experience, the key problem has been defined: how to focus pupils' attention, in which way, to completely activate his/hers perceptive-cognitive capacities and so how to open the way to the essential understanding of a musical piece, in other words, to musical apperception?

Aims

The aim of this work is to point out the positive effects of involving the visual medium into the processes of musical (a)perception – through the visual presentation of the structure of the musical piece i.e. individual elements of the musical expression – and so to point out the direct connection with the increase of the level of perceptive-cognitive aspects of musical abilities of non-musicians. The aim of the work is also focused on the discussion of the possibilities of forming the complete analytical-methodical approach which, on the basis of the analysis of explorative studies in this research field, would include all the perceptive-cognitive organizational levels of a musical piece and then on the possibility of its implementation into the teaching process itself.

Main contribution

The main contribution is based on consideration of multifaceted benefits of the simultaneous initiation of two sensor responses (visual and auditive) during the process of the analytical listening to music by which the intensity of the whole sensation is increasing, so that the level of the perceptive-cognitive aspects of musical abilities is probably higher (Shank, 2003). The involvement of the visual medium into the teaching contents which develop the analytical musical pupils' capabilities – musical (ap)perception – can be a very important index of the improvement of the teaching musical practical training within the primary school pupils' musical education disregarding their age.

Implications

The synergic effect of the auditive and visual medium directly causes the improvement of the analytical abilities of pupils non-musicians, their capability of the perception of individual elements of the musical expression by activating the cognitive processes of musical attention and memory, the capability of data structuring and their involvement into 'the totality of a higher order' – a musical form. The synergic effect of two mediums also enables the direct keeping up with the dramaturgy of a musical piece by which pupils' musical experience itself is intensified, in other words, the apperception of the musical piece is realized. A pupils' apperception ability will have a direct influence on its general cognitive development, in other words, the development of all his intellectual potentials (Hallam, 2010).

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Keywords: analytical listening to music, musical form, musical (a)perception, visual medium, non-musicians.

Istraživanje faktora motivacije nastavnika muzičkih škola u Beogradu

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Teorijske osnove

Istraživanje testira Herbergovu teoriju motivacije prema kojoj postoje dve grupe faktora, higijenski i motivacioni. Po ovoj teoriji, postojanje motivacionih faktora će ohrabriti zaposlene za angažovaniji rad, dok postojanje higijenskih faktora neće ohrabriti zaposlene za bolji učinak na poslu, ali će ih njihovo odsustvo demotivisati. Herberg je pod motivacionim faktorima podrazumevao lični osećaj postignuća, prepoznavanje postignuća od strane nadređenih, osećaj pripadnosti i doprinosa sistemu, osećaj odgovornosti i predanosti poslu. Higijenske faktore – na čije se istraživanje ovaj rad fokusira – predstavljaju uslovi rada, međuljudski odnosi na poslu i visina ličnog dohotka (Herzberg, Bernard, & Snyderman, 1959).

Ciljevi

Cilj rada je da ispita različite faktore motivacije koji su prisutni kod nastavnika u muzičkim školama u Beogradu kao i da ispita mišljenje nastavnika o opšteprisutnom stavu, prema kome se prosvetni radnici ne angažuju dovoljno u radu zbog niskih prihoda.

Metod

Uzorak je činilo 272 nastavnika (instrumenta, pevanja, teorijskih predmeta, hora, orkestra i ko-repetitora) u 6 muzičkih škola na teritoriji Beograda. Istraživanje je sprovedeno putem anketiranja nastavnika prisutnih na razrednim večima. Uпитnik je formulisan prema posebnim uslovima karakterističnim za rad u muzičkoj školi i sadržao je ukupno 72 pitanja, od kojih se 16 odnosilo na Herbergovu teoriju. Pitanja su se odnosila na njihova primanja, opis i uslove radnog mesta, stepen unutrašnje motivacije za obavljanje nastavničkog poziva, stepen spoljašnje motivacije od strane obrazovnog sistema, stepen spoljašnjeg priznanja za zalaganje i postignuće. Nastavnici su se izjašnjavali odgovaranjem na petostepenoj Likertovoj skali.

Rezultati

Registrovan je pad u motivaciji za rad u trenutku popunjavanja upitnika (70.8% je trenutno pozitivno ocenilo svoju motivaciju za rad) u odnosu na motivaciju na početku pedagoške karijere (90.1% je ocenilo da je bilo veoma motivisano za rad). Među glavnim faktorima koji utiču na pad, novac se našao na trećem mestu (72.4% se ne oseća dovoljno plaćeno), dok je na drugom mestu obimna i nejasna administracija koju nastavnici popunjavaju (83.1%), a na prvom nekreativan nastavni plan i program (87.5%). Samo 15.5% nastavnika se oseća adekvatno nagrađeno za uspeh koji postižu, a 18% razume trenutnu strategiju o umetničkom obrazovanju. Iako je motivacija za rad u opadanju, 84.2% nastavnika se izjasnilo kao motivisano za usavršavanje svog pedagoškog pristupa zarad poboljšanja kvaliteta nastave, a 82.8% uživa u svom poslu.

Zaključci

Dobijeni su paradoksalno visoki rezultati motivacije za usavršavanjem i uživanja u poslu, nasuprot velikom nezadovoljstvu nastavnika obrazovnim sistemom. Nastavnicima je najvažniji kreativni potencijal njihovog radnog mesta, koji im trenutni plan i program, kao i opis radnog mesta ne dozvoljavaju da u potpunosti ispune. Novac – higijenski faktor koji je ovaj rad testirao – nije

se pokazao kao primarni izvor motivacije za rad, ali obzirom na to da se dve trećine ispitanika izjasnilo da nisu dovoljno plaćeni, ne možemo sa sigurnošću da kažemo da je on isključivo higijenski faktor. Kako je pokazano da veoma mali broj nastavnika ima predstavu o cilju i misiji obrazovnog sistema kog su deo, kao i da imaju slab osećaj nagrade za svoja postignuća, otvara se mogućnost dubljeg ispitivanja šta to održava njihovu motivaciju za usavršavanjem pedagoškog pristupa i ljubav prema svom pozivu na tako visokom nivou.

Reference

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Ključne reči: muzičko obrazovanje, motivacija nastavnika, obrazovna politika.

Research on motivational factors of specialist music schools' teachers in Belgrade

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Background

This research tests Herzberg's motivation theory according to which there are two groups of factors, hygienic and motivational. The existence of motivational factors will encourage employees to engage themselves more, while the existence of hygienic factors will not encourage employees to have a better performance at work, but their absence will be demotivating. Under motivation factors, Herzberg implied a personal sense of achievement, recognition of achievements by superiors, a sense of belonging and contribution to the system, a sense of responsibility and commitment to work. Hygienic factors represent the conditions of work, interpersonal relations on work and the personal income that this study focuses on.

Aims

The aim of this paper is to examine the different motivational factors of specialist music schools' teachers in Belgrade, as well as to examine the perspective of teachers, on the generally present opinion, that teachers are not engaged enough at work, due to low salaries.

Method

The sample consisted of 272 teachers (instruments, singing, theoretical subjects, choir, orchestra teachers and accompanists) in 6 music schools in Belgrade territory. The research was carried out by applying the questionnaire to teachers present at meetings. The questionnaire was formulated by taking into account the characteristics of music schools working conditions. It contained a total of 72 questions, of which 16 was related to Herzberg's theory. The questions were related to salaries, job description and labor conditions, level of inner motivation for teacher's job, the degree of external motivation provided by the education system, external recognition for effort and achievement. Answers were given on the five points Likert scale.

Results

The decline in working motivation was registered (70.8% teachers currently positively rated their motivation for work) in comparison with the motivation level at the beginning of their pedagogical career (90.1% estimated their motivation as very high, then). Among the main factors affecting the motivation decline, money was at the third place (72.4% felt as not paid enough), while large and vague administration that teachers have to fill in, was at the second place (83.1%), and at the first place was non-creative curriculum (87.5%). Only 15.5% of teachers feel that they are adequately rewarded for the achievement they have, and 18% of teachers understand the current strategy of art education. Although the motivation for work is descending, 84.2% of teachers declared themselves motivated to improve their pedagogical approach in order to improve the quality of teaching, while 82.8% enjoy their work.

Conclusions

Paradoxically high results of motivation for improvement and work enjoyment were obtained, despite the high teachers' dissatisfaction with the educational system. Teachers value creativity as the most important potential of their work, which curriculum does not allow them to fully fulfill, as well as current plan and program and job description. Money, the hygienic factor that this paper tested, did not prove to be the primary source of motivation for work. But given that two-thirds of the respondents said they were not paid enough, we can not say with certainty that it is solely a hygienic factor. As it has been shown that a very small number of teachers have an idea of the goal and mission of the educational system which they are a part of and that they think their achievements' reward is low. This research opens the possibility of further investigation about motivational sources of teachers who nevertheless strive to improve pedagogical approach and love for their profession at such a high level.

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Herzberg, F., Bernard, M. & Snyderman, M. M. (1959). *The motivation to work*. New York: Wiley.

Keywords: music education, teachers' motivation, education policy.

Koncept ranjivosti i muzička praksa dečjih horova. Studija slučaja – Dečji hor Prvog beogradskog pevačkog društva*

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Teorijske osnove

U ovom radu razmatraju se implikacije teorijskog koncepta ranjivosti i to na primeru muzičke prakse Dečjeg hora Prvog beogradskog pevačkog društva. Budući da je reč o fleksibilnom teorijskom modelu, u studiji se opredeljujemo za teorijsku platformu koju je postavila Erin Gilson. Gilsonova smatra da vulnerabilnost ne treba posmatrati kao negativan koncept: kao slabost ili podložnost povređivanju, već kao otvorenost za promene uočljiv u ključnim kategorijama koje obuhvataju: potencijalnost, ambigvitet/ambivalenciju, esencijalnost ili suštastvenost i raznovrsnost manifestacija (Gilson, 2014).

Ciljevi

Glavni cilj ove studije jeste problematizacija različitih aktivnosti Dečjeg hora, uz pomoć teorije vulnerabilnosti.

Potencijalnost, sagledana kao perzistentna forma otvorenosti za promenu, očigledna je u statusu Dečjeg hora Prvog beogradskog pevačkog društva (Petrović, Đaković, Marković 2004). Arhivska dokumenta obezbeđuju uvid u njegovu poziciju kao *ansambl u nastajanju*. Rasprostranjeno stanovište o generativnom potencijalu dečjeg ansambla odnosi se na jedan od glavnih ciljeva njegovog postojanja i rada: muzičko obrazovanje dece i njihova *priprema da postanu* članovi mešovitog hora.

Ambigvitet/ambivalencija uočava se u procesu transformacije koja se odvija isključivo kroz veze uspostavljene sa drugima. U objavljenim napisima, s jedne strane, Dečji hor se smatra veoma važnim, ako ne i najvažnijim 'telom' Prvog beogradskog pevačkog društva; on je svojevrsni 'rasadnik' budućih članova hora Prvog beogradskog pevačkog društva, ali je, s druge strane, u pojedinim situacijama u prošlosti bio marginalizovan prilikom pripreme i realizacije javnih nastupa.

Esencijalnost ili suštastvenost jeste bazični stav da su svi jednako ranjivi, dok formativni elementi utiču na to da se ranjivost svakog ljudskog bića realizuje na drugi način. Kada je o muzici reč, dečji hor, kao specifični ansambl, poseduje esencijalna obeležja (ambitus, broj horskih glasova, boju, izvođačko-tehničke mogućnosti, tembr), koje utiču na muzičke aranžmane i način učenja (Despić, 1984). Arhiv Prvog beogradskog pevačkog društva sadrži brojne aranžmane *istih muzičkih ostvarenja* za potrebe dečjeg hora i jedan od ciljeva ove studije će biti analiza različitih aranžmana istih kompozicija iz ugla konceptata esencijalnosti ili suštastvenosti i raznovrsnost manifestacija.

Glavni doprinos

Koliko nam je poznato, dečjih horovi do sada nisu bili istraživani iz perspektive teorije vulnerabilnosti. Interdisciplinarnim pristupom biće sagledan diskurs delovanja Dečjeg hora Prvog beogradskog pevačkog društva, kao i karakteristike ontološke i situacione vulnerabilnosti koje odli-

* Ovo istraživanje nastalo je kao rezultat rada na projektu *Identiteti srpske muzike u svetskom kulturnom kontekstu*, koji podržava Ministarstvo prosvete, nauke i tehnološkog razvoja Republike Srbije.

kuju ovu vrstu ansambla. Drugi značajan doprinos ogleda se u analizi muzikalija, a treći – kroz rezultate obrade primarne i do sada neobjavljene arhivske građe.

Implikacije

Glavna implikacija ove studije jeste da da je vulnerabilnost dečjeg hora dvostruka kategorija: ona je ontološka i inherentna, ali je i situaciona i kontekstualno uslovljena. Ovaj rad će ukazati na potencijalne tokove budućih istraživanja.

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Gljučne reči: četiri kategorije vulnerabilnosti, muzička kritika, arhivska građa, muzička analiza, *Liturgija Svetog Jovana Zlatoustog* St. St. Mokranjaca.

The concept of vulnerability and music practice of children's choir. Case study – children's choir of the First Belgrade's Choral Society*

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Background

This study explores implications of the theoretical concept of vulnerability, focusing on the activities of the Children's choir of the *First Belgrade Choral Society* [*Prvo beogradsko pevačko društvo*]. Since vulnerability is a flexible and complex theoretical model, for the purpose of this article the theoretical platform of Erinn Gilson was selected. For her, vulnerability should not be considered as a negative concept, as weakness and susceptibility to harm, but as an openness to change found in key characteristics: potentiality, ambiguity/ambivalence, univocity and diversity of manifestations (Gilson, 2014).

Aims

The main aim is to problematize the diverse activities of the Children's choir, through the prism of Gilson's theory.

Potentiality is viewed as a persistent form of openness for change and it is obvious in the status in the status of Children's choir of the *First Belgrade's Choral Society* (Petrović, Đaković and Marković 2004). Archival documents provide insights into its' position as the becoming ensemble. The common opinion about generative potential of children's choir is related to one of the main goals of its' existence and work: musical education of children and their *preparation* to become members of mixed choir.

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Ambiguity/ambivalence is perceived in the process of transformation which streams only through relations made with others. In published writings, on one side, Children's choir is considered to be very important, if not the most important 'body' of the Choral Society, it is treated as a 'nursery' of future members of choir; on the other – it was marginalized in several public performances in the past.

Univocity is the basic attitude that everybody is equally vulnerable, while formative elements influence the distinctive realizations of vulnerability of each human being. Regarding music, children choir, as a specific ensemble, displays univocal traits (vocal range, number of choral voices, color, interpretative-technical abilities), that influence musical arrangements and the way of learning (Despić, 1984). The archive of the *First Belgrade's Choral Society* has number of arrangements of *the same musical compositions* for the children's choir, and one of the aims of this study will be the presentation of different arrangements of the same composition, through the prism of concepts of univocity and diversity of manifestations.

Main Contribution

As far as we know, so far children's choirs have not been researched based on the theory of vulnerability. The interdisciplinary approach will analyze the discourse in which Children choir of the *First Belgrade's Choral Society* works, as well as characteristics of ontological and situational vulnerability, typical for this kind of ensemble. Second significant contribution will be the musical analysis based on the theoretical background of vulnerability, and the third – the results of processing the primary and until now unpublished archival material.

Implications

The main implication of this study is to show that vulnerability of the children's choir is double category: it is ontological and inherent, but it is also situational and contextual-influenced. This study will indicate a potential course for future research.

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Keywords: four characteristics of vulnerability, music critic, archival records, music analysis, St. St. Mokranjac's *The Divine Liturgy of St. John Chrysostom*.

Tematska sesija 7
MUZIČARI I ZDRAVLJE

Thematic Session 7
MUSICIANS AND HEALTH

Zdravstvena pismenost muzičara: studija preseka iz Velike Britanije

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Teorijske osnove

Zdravstvena pismenost podrazumeva formiranje znanja vezanog za zdravlje i razvijanje kognitivnih i socijalnih veština koje vode motivaciju individue da pristupi, razume i koristi informacije vezane za zdravlje, kako bi se brinula o sopstvenom zdravlju (Svetska zdravstvena organizacija, 1998). Trenutno nema dostupnih podataka o zdravstvenoj pismenosti muzičara. Međutim, procena može pomoći edukatorima, profesionalcima u zdravstvu, organizacijama i stručnjacima u promociji zdravlja da se specifičnije bave potrebama muzičara.

Ciljevi

Cilj je bio istraživanje zdravstvene pismenosti među muzičarima koji žive u Velikoj Britaniji.

Metod

Dobijena je licenca za Upitnik o zdravstvenoj pismenosti (UZS). Ovaj merni instrument, koji koristi definiciju Svetske zdravstvene organizacije o zdravstvenoj pismenosti, ima jaka psihometrijska svojstva i sastoji se od 44 stavke koje mere ukupno 9 dimenzija: 1) Osećaj razumevanja i podrške od strane davalaca zdravstvenih usluga; 2) Posedovanje dovoljno informacija za upravljanje svojim zdravljem; 3) Aktivno upravljanje zdravljem; 4) Pruženu socijalnu podršku za zdravlje; 5) Procenu zdravstvenih informacija; 6) Sposobnost aktivnog angažovanja sa davaocima zdravstvenih usluga; 7) Sposobnost kretanja u zdravstvenom sistemu; 8) Sposobnost pronalaženja dobrih zdravstvenih informacija; 9) Razumevanje zdravstvenih informacija dovoljno dobro da bi se znalo sta je potrebno učiniti (Osborne et al., 2013). Čitav niz pitanja, uključujući i demografske stavke, bio je dostupan online u periodu od novembra 2018. do marta 2019. godine.

Rezultati

Demografske informacije su dobijene od 477 ispitanika, starosti od 19 do 78 godina ($M = 34$, $SD = 15$), od kojih je 61% žena. Ispitanici su podjednako raspodeljeni na studente muzike (45%) i profesionalne muzičare (55%). Od svih studenata muzike, 74% su bili nediplomirani student i 51% sa Kraljevskog severnog konzervatorijuma. Ispitanici su uglavnom bili Britanci (88%) i pretežno iz polja klasične muzike (79%). Na pitanje o muzičkom zanimanju, njih 72% je odgovorilo sa „Izvođenje”, 21% sa „Podučavanje” i 5% sa „Komponovanje”. Gudači su činili 39.5% ispitanika, dok je drvenih i/ili limenih duvača bilo 26%, klavijaturista 14%, pevača 15% i perkusionista 4%.

Izračunati su srednji rezultati za svaku od devet UZS skala. Za prvih pet skala korišćene su opcije odgovora koje se kreću od „Uopšte se ne slažem” (1) do „U potpunosti se slažem” (4); najviša ukupna ocena pronađena je za skalu „Pružena socijalna podrška za zdravlje” ($M = 2.89$, $SD = 0.52$). Najniži rezultat je bio za skalu „Osećanje razumevanja i podrške od strane davalaca zdravstvenih usluga” ($M = 2.60$, $SD = 0.65$). Kada su u pitanju poslednje četiri skale – raspon od „Nemoguće uraditi” (1) do „Veoma lako” (5) – najviši rezultat je bio za „Razumevanje zdravstvenih informacija dovoljno dobro da bi se znalo sta je potrebno učiniti” ($M = 3.91$, $SD = 0.64$), dok je najniži bio za „Kretanje u zdravstvenom sistemu” ($M = 3.36$, $SD = 0.73$).

Zaključci

Ovo je prva studija koja je istraživala zdravstvenu pismenost muzičara. Korisnost korišćenja UZS-a leži u identifikovanju snage i ograničenja zdravstvene pismenosti među muzičarima. Ovde su prikazani samo preliminarni rezultati, kako je studija još u toku. Na konferenciji će biti razmatrano više nalaza i implikacija.

Reference

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Ključne reči: zdravstveno obrazovanje, konzervatorijumi, upitnik.

Musicians' health literacy: A cross-sectional UK study

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Background

Health literacy is about both building health-related knowledge and developing a set of cognitive and social skills that guide individuals' motivation and ability to access, understand and use health-related information in order to take care of their own health (World Health Organization, 1998). No data is currently available on musicians' health literacy. However, assessing it may help educators, health professionals, organizations and specialists in health promotion to address the needs of musicians more specifically.

Aims

The aim was to investigate health literacy among musicians residing in the UK.

Method

The license for the Health Literacy Questionnaire (HLQ) was obtained. This tool uses the WHO definition for health literacy, has strong psychometric properties and consists of 44 items that measure a total of nine dimensions which include: 1) Feel understood and supported by health-care providers; 2) Have sufficient information to manage my health; 3) Actively managing health; 4) Have social support for health; 5) Appraise health information; 6) Ability to actively engage with healthcare providers; 7) Ability to navigate the healthcare system; 8) Ability to find good health information; 9) Ability to understand health information well enough to know what to do (Osborne et al., 2013). The entire set of questions including demographic items was administered online between November 2018 and March 2019.

Results

Demographic information was obtained from 477 respondents, aged 19-78 years ($M = 34$, $SD = 15$), of whom 61% were female. Respondents were equally distributed between music students (45%) and professional musicians (55%). Of all music students, 74% were undergraduate and 51% from the Royal Northern College of Music. Respondents were mostly British (88%) and mostly classical musicians (79%). When asked about primary musical occupation, 72% answered 'Performing', 21% 'Teaching', and 5% 'Composing'. String players represented 39.5% of respondents, while 26% were wind and/or brass players, 14% keyboard players, 15% singers and 4% percussionists.

Mean scores for each of the nine HLQ scales were calculated. For the first five scales answered using response options ranging from 'Strongly disagree' (1) to 'Strongly agree' (4), the highest overall score was found for the scale 'Have social support for health' ($M = 2.89$, $SD = 0.52$). The lowest score was for 'Feeling understood and supported by healthcare professionals' ($M = 2.60$, $SD = 0.65$). For the last four scales ranging from 'Cannot do' (1) to 'Very easy' (5), highest score was for 'Understand health information enough to know what to do' ($M = 3.91$, $SD = 0.64$), while lowest was for 'Navigating the healthcare system' ($M = 3.36$, $SD = 0.73$).

Conclusions

This is the first study that investigated musicians' health literacy. The utility of using HLQ lies in identifying health literacy strengths and limitations among musicians. Only preliminary results are reported here, as the study is ongoing. More findings and implications will be discussed at the conference.

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Keywords: health education, conservatoires, questionnaire.

Fizička aktivnost studenata muzike: znanje, ponašanje, barijere i obuka

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Teorijske osnove

Fizička aktivnost (FA) je povezana sa manjom učestalošću i ozbiljnošću mišićno-skeletnih poremećaja pri izvođenju (MSPI, Chan, Driscoll i Ackermann, 2014). Međutim, ostaje nejasno koji se nivoi FA preporučuju muzičarima. Zvanične preporuke navode da odrasli, starosti od 18 do 64 godine, treba da upražnjavaju najmanje 150 minuta nedeljno aerobnih FA umerenog intenziteta (Svetska zdravstvena organizacija, bez datuma). Znanje muzičara o takvim preporukama, spoznaje prepreka za FA i obuka koju dobijaju u vezi sa FA su nepoznati kao faktori rizika za MSPI. Sedeće ponašanje (SP) ili produženo sedenje povezani su sa muskuloskeletnim bolom, nezavisno od FA, kod ne-muzičara.

Ciljevi

Ova eksplorativna studija istraživala je nivo samoprocene FA i SP kod studenata muzike; njihovo poznavanje zvaničnih smernica za FA; prepreke za uključivanje u FA; kao i do koje mere i iz kojih izvora su naučili o značaju FA tokom obuke.

Metod

Sprovedeno je transversalno ispitivanje putem upitnika. Instrument je sadržao osnovne demografske podatke, standardizovane upitnike, stavke izvučene ili prilagođene iz standardizovanih upitnika i stavke koje su kreirali istraživači. Standardizovani upitnici uključivali su Međunarodni upitnik o fizičkoj aktivnosti – kratka forma (MUFA-KF); Kviz o preprekama za fizičku aktivnost (KPFA); Upitnik o sedećem ponašanju (USP). Korišćene su dve stavke o bolu iz RAND 36-instrumenta za ispitivanje u kratkoj formi (KF-36) i dve stavke o MSPI (učestalost i jačina). Konačno, istraživači su kreirali dve stavke o obuci vezanoj za zdravlje koja je u vezi sa FA. Celokupan set upitnika je sproveden online i preko štampanih kopija između juna 2017. i aprila 2018. godine među studentima muzike sa svih britanskih konzervatorijuma. Opisane su deskriptivne statistike i korelacije između MSPI-a i bola, između FA i SP.

Rezultati

Demografske informacije su dobijene od 111 ispitanika, starosti od 18 do 31 godine ($Mdn = 22$), od kojih su 58% bile žene. Najveći broj njih su bili studenti osnovnih studija (84%) Kraljevskog severnog konzervatorijuma (74%) i Britanci (68%). Iako je 70% ispitanika izjavilo da je njihova FA umerena, a 26% je izvestilo o visokoj FA, 76% je reklo da ne znaju koje su bile nacionalne preporuke za FA. Prepreke za aktivnost su nedostatak vremena, energije, snage volje i resursa i društvenog uticaja. Ispitanici su rekli da u proseku učestvuju u 41 satu ne-profesionalnog SP nedeljno, što je manje u odnosu na britanske studente u globalu. Uočene su male pozitivne korelacije između učestalosti i jačine MSPI-a i SP tokom vikenda ($r_s = .213$, 95% CI [.007; .405], $p < .05$; $r_s = .217$, 95% CI [.033; .379], $p < .05$). Samo 60% studenata je izjavilo da je dobilo savet o tome zašto bi trebalo da se angažuju u FA, pri čemu su nastavnici glavni izvor saveta.

Zaključci

Ovo je prva studija koja istražuje: SP kod studenata muzike; poznavanje smernica za FA; prepreke za angažovanje u FA; u kojoj meri su studenti dobili savete o važnosti FA; kao i odnose između FA, SP i MSPI-a i bola.

Reference

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Ključne reči: vežbe, obuka, konzervatorijum.

Music students' physical activity: Knowledge, behaviour, barriers, and training

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Background

Physical activity (PA) is associated with lower frequency and severity of performance-related musculoskeletal disorders (PRMDs) (Chan, Driscoll & Ackermann, 2014). However, it remains unclear what levels of PA are recommended for musicians. Official recommendations state that adults aged 18 to 64 years should engage in at least 150 minutes of moderate-intensity aerobic PA per week (World Health Organization, undated). Musicians' knowledge of such recommendations, perceived barriers to PA and the training they receive with regards to PA as a risk factor for PRMDs is unknown. Sedentary behaviour (SB) or prolonged sitting has been associated with musculoskeletal pain, independent of PA, in non-musicians.

Aims

This exploratory study investigated music students' self-reported levels of PA and SB; their knowledge of official guidelines for PA; barriers to engaging in PA; and the extent to which they have learned about the importance of PA during their training, and from what sources.

Method

A cross-sectional questionnaire survey was conducted. The instrument comprised basic demographic data, standardized questionnaires, items excerpted or adapted from standardized questionnaires and items created by the researchers. Standardized questionnaires included the International Physical Activity Questionnaire – Short Form (IPAQ-SF); Barriers to Being Physically Active quiz (CDC); Sedentary Behaviour Questionnaire (SBQ). Two items on pain from the RAND 36-Item Short Form Survey Instrument (SF-36) and two items on PRMDs (frequency and severity) were used. Finally, two items on health-related training in relation to PA were created by the researchers. The entire set of questionnaires was administered online and

via hard copies between June 2017 and April 2018 to music students at all UK conservatoires. Descriptive statistics and correlations between PRMDs and pain, PA and SB are reported.

Results

Demographic information was obtained from 111 respondents, aged 18-31 ($Mdn = 22$), of whom 58% were female. Most were undergraduate students (84%) from the Royal Northern College of Music (74%) and British (68%). Although 70% of respondents reported moderate PA and 26% reported high PA, 76% said they did not know what the national recommendations for PA were. Barriers to being active included lack of time, energy, willpower and resources, and social influence. Respondents said they engage in 41 hours of non-occupational SB per week on average, less than UK students in general. Small positive correlations were found between frequency and severity of PRMDs and SB at the weekend only ($r_s = .213$, 95% CI [.007; .405], $p < .05$; $r_s = .217$, 95% CI [.033; .379], $p < .05$). Only 60% of students reported having received advice on why they should engage in PA, with teachers being the main source of advice.

Conclusions

This is the first study investigating music students' SB; knowledge of PA guidelines; barriers to engaging in PA; the extent to which students received advice on the importance of PA; and the relationships between PA, SB and PRMDs and pain.

References

- Chan, C., Driscoll, T., & Ackermann, B.J. (2014). Effect of a musicians' exercise intervention on performance-related musculoskeletal disorders. *Medical Problems of Performing Artists*, 29, 181-8.
- World Health Organization. (undated). Physical activity. Retrieved on 13 September 2018 from <https://www.who.int/news-room/fact-sheets/detail/physical-activity>

Keywords: exercise, training, conservatoire.

Šta treba da sadrži zdravstvena edukacija na konzervatorijumima? Nalazi iz serije interdisciplinarnih radionica sa ekspertima

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Teorijske osnove

Zdravstveno obrazovanje obuhvata sticanje znanja o zdravlju uz razvijanje određenih kognitivnih i socijalnih sposobnosti, uključujući odlučivanje i kritičko mišljenje koji usmeravaju motivaciju individue i njenu sposobnost da pristupi informacijama o zdravstvenoj nezi i da te informacije iskoristi (Svetska zdravstvena organizacija, 1998). Iako muzičke visokoškolske institucije širom sveta nude različite oblike zdravstvenog obrazovanja, trenutno ne postoji relevantan set smernica za muzičare. Kritičko mišljenje koje se često uči na univerzitetima, retko je uključeno u program na konzervatorijumima, iako bi ovakva obuka doprinela obuci muzičara da nezavisno razmišljaju o pitanjima svog zdravlja.

Ciljevi

Cilj ovog istraživanja bio je razvoj sadržaja idealnog programa zdravstvene edukacije za studente konzervatorijuma u Ujedinjenom Kraljevstvu, na osnovu dostupnih podataka i povratnih informacija od strane eksperata.

Metod

Na osnovu postojeće dokumentacije i literature, osmislili smo set od 5 lista (psihološke teme, zdravstvene teme, kognitivne pristrasnosti, logičke greške i kritička evaluacija). Ova dokumentacija uključivala je, između ostalog: silabuse Britanskog psihološkog društva (BPS) za kvalifikacije u zdravstvenoj, kliničkoj i psihologiji rada; preglede intervencija čiji su ciljevi bile prevencija i ublažavanje anksioznosti prilikom muzičkog izvođenja, muskulo-skeletalni problemi vezani za muzičko izvođenje, gubitak sluha uzrokovan bukom i evaluacije zdravstveno-obrazovnih kurseva za muzičare koje su objavljene u recenziranim naučnim časopisima; alatke za zdravstvenu procenu koje se preporučuju novinarima i široj javnosti. Navedeni materijali odabrani su na osnovu njihove relevantnosti za zdravlje muzičara, dopunjeni su kratkim definicijama i propraćeni ilustrativnim primerima koji ukazuju na to kako olakšati procenu njihove primenljivosti.

Nakon toga, u septembru 2018. izveli smo 4 jednodnevna interdisciplinarna seminara u Londonu i Mančesteru. Na seminar su bili pozvani eksperti (istraživači i praktičari) iz oblasti muzičkog obrazovanja i izvođaštva, medicine, medicinske edukacije i društvenih nauka. Eksperti su diskutovali navedene sadržaje u malim grupama. Autori i učesnici su beležili, a zatim tematski analizirali zabeleženi materijal.

Rezultati

Seminare je pohađalo 50 učesnika. Tematska analiza je i dalje u toku, stoga će ovde biti prikazani preliminarni rezultati. Većina učesnika smatrala je teme i alatke relevantnim. Ukazano je na teme koje nisu bile uključene, a koje bi mogle biti relevantne, poput značaja hobija koji nisu vezani za muziku, kvaliteta veze, usamljenosti i suočavanja sa medijima. Učesnici su se pridržavali sveobuhvatnog pristupa zdravlju zasnovanog u okruženju, čime su se borili za sistemske promene. Ključnu temu predstavljala je kultura klasične muzike, zajedno sa svojom ideologijom i relevan-

tnim pretpostavkama. Glavne teme diskusije uključivale su: cilj konzervatorijuma; značaj predstavljanja zdravlja kao teme relevantne za studente muzike; nedovoljno dobar trening nastavnika muzike; identitet muzičara; kulturne norme, profesionalne pritiske i socijalne odrednice zdravlja; konflikt između tradicije i onoga što je očigledno i što treba da čini pouzdane pokazatelje.

Zaključci

Ovo je bio prvi pokušaj dokumentovanja nalaza dobijenih u okviru događaja sa ciljem da eksperti diskutuju sadržaj idealne zdravstvene edukacije za studente konzervatorijuma u UK. Rezultati ukazuju na kompleksnost i neophodnost ovakvih diskusija.

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World Health Organization. (1998). Health promotion glossary. Pristupljeno 13. septembra 2018. <http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf>

Ključne reči: zdravstveno obrazovanje, konzervatorijum, smernice.

What should health education in conservatoires consist of? Findings from a series of interdisciplinary workshops with experts

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Background

Health education encompasses building health knowledge and developing a set of cognitive and social skills, including decision making and critical thinking, that guide individuals' motivation and ability to access, understand and use health information to take care of their own health (World Health Organization, 1998). Although various forms of health education are offered by higher music education institutions worldwide, there are currently no relevant guidelines. Critical thinking often taught in universities, is rarely included in the curriculum of conservatoires, but would benefit the training of musicians to be independent thinkers in relation to health.

Aims

The aim was to develop the content of an ideal health education curriculum for conservatoire students in the United Kingdom, on the basis of the available evidence and expert feedback.

Method

We created a set of five lists (psychology topics; health topics; cognitive biases; logical fallacies; and critical appraisal tools) based on the literature and existing documents, including: the British Psychological Society (BPS) syllabi for qualifications in health, clinical and occupational psychology; reviews and systematic reviews of interventions aimed at preventing and mitigating music performance anxiety, performance-related musculoskeletal issues, noise-induced hearing loss, and evaluations of health education courses for musicians that have been published as peer-reviewed articles; and critical health appraisal tools recommended for journalists and the general public. These were chosen on the basis of their relevance to musicians' health, accompanied by brief definitions and illustrated with examples to make it easier to assess their applicability.

Next, we ran a series of four one-day interdisciplinary workshops in September 2018, in London and Manchester, where we invited experts (both researchers and practitioners) from music education and performance, medicine, medical education and social sciences, and asked them to discuss in small groups, the content of our lists. Notes were taken by authors and participants and were thematically analyzed.

Results

Fifty participants attended the four workshops. The thematic analysis is ongoing, therefore preliminary findings are reported here. Most participants thought that the topics and tools were relevant. Suggestions for topics missing from the list were also made, including the importance of non-musical hobbies, relationship hygiene, loneliness and dealing with the media. Participants adhered to a settings-based and encompassing approach to health, thereby militating for systemic changes. As such, the culture of classical music with its ideology and relevant assumptions represented the overarching theme. Main discussion points included: the aim of the conservatoire; the importance of making health relevant to music students; the poor training of music teachers; the musician's identity; cultural norms, professional pressures and social determinants of health; the conflict between tradition and evidence and what ought to constitute reliable evidence.

Conclusions

This is the first attempt to document findings from a series of events aimed at using the knowledge and expertise of key stakeholders to discuss the content of an ideal health education curriculum for conservatoire students in the UK. Results reveal the complexity of and need for such a conversation.

References

World Health Organization. (1998). Health promotion glossary. Retrieved on 13 September 2018 from <http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf>

Keywords: health education, conservatoire, guidelines.

Koučing za muzičare baziran na Shema terapiji

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Teorijske osnove

Istraživanja pokazuju da se studenti muzike razlikuju od nemuzičara po brojnim psihološkim karakteristikama uključujući tu i mentalno zdravlje, Rane maladaptivne sheme (Mirović i Bogunović, 2013) i Maladaptivne stilove prevladavanja shema (Mirović, Mešković & Bogunović, 2018). Imajući ovo u vidu, dizajnirali smo na Shema terapiji utemeljen preventivni koučing program za muzičare.

Ciljevi

Cilj ovog programa je unapređivanje mentalnog zdravlja i opšte dobrobiti muzičara kroz smanjivanje Ranih maladaptivnih shema i Maladaptivnih stilova prevladavanja. Smanjivanje shema i koping stilova može dalje dovesti do umanjivanja (izvođačke) anksioznosti i nižeg samopouzdanja – problema koji su u populaciji muzičara veoma zastupljeni (Mirović, 2017; Mirović & Bogunović, 2013). Cilj ovog izlaganja je da prikaže ključne aspekte preventivnog koučing programa baziranog na Shema terapiji.

Glavni doprinos

Višegodišnje iskustvo u psihološkom savetovanju muzičara i iskustvo sa ranije implementiranim koučing programima (Mirović, 2016), ukazalo je na važnost i efektivnost ovakvih programa. Iako su bili veoma efikasni, prethodni programi nisu tretirali ni dublje kognicije (kognitivne sheme) ni maladaptivne stilove prevladavanja. Imajući u vidu istraživanja (npr. Mirović, Mešković & Bogunović, 2018) koja pokazuju da su i Rane maladaptivne sheme i stilovi prevladavanja (npr. nadkompenzacije i izbegavanje-umirivanje kroz alkohol i droge) statistički značajno izraženiji kod studenata muzike, verujemo da bi program baziran na Shema terapiji mogao doprineti ne samo smanjivanju maladaptivnih shema i stilova prevladavanja, već i porastu adaptivnih strategija i kognicija.

Implikacije

Slabljenje maladaptivnih shema i kognitivnih stilova značajno doprinosi unapređenju mentalnog zdravlja, opšte dobrobiti i stabilnosti (Mirović, 2015). Budući da mentalno zdravlje i opšta dobrobit značajno utiču na naše funkcionisanje, verujemo da bi ovaj vid preventivnih koučing programa mogao imati pozitivan uticaj i na muzičko izvođenja kao takvo.

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Ključne reči: Shema terapija, mentalno zdravlje muzičara, opšta dobrobit (*Wellbeing*), izvođenje.

Schema therapy couching for musicians

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Background

Researches show that music students differ from non-musicians in relation to a number of psychological characteristics including mental health, Early Maladaptive Schemas (Mirović & Bogunović, 2013) and Schema Coping Modes (Mirović, Mešković & Bogunović, 2018). Having this in mind we designed Schema therapy backgrounded preventive, couching program for the musician.

Aims

The aim of this program is to improve the musician's mental health and overall wellbeing by reducing their Early Maladaptive Schemas and Maladaptive Coping Modes. The reduction of these schemas and modes could lead to a decrease in musicians' widely spread (performance) anxiety and poorer self-esteem (Mirović, 2017; Mirović & Bogunović, 2013). The aim of this presentation is to point out the main aspects of this Schema therapy-based program.

Main Contribution

Years-long experience in counseling musicians coupled with previously designed couching programs (Mirović, 2016) demonstrated the importance and the effectiveness of these programs. Although highly effective, the previous programs did not target deeper cognitions (cognitive schemas) or maladaptive coping styles. Knowing from the research (i.e. Mirović, Mešković & Bogunović, 2018) that Early Maladaptive Schemas and maladaptive Coping modes (such as Overcompensation and Self-soothing through drugs and alcohols) tend to be significantly higher in music students, we believe that Schema therapy based program could contribute to the decrease in maladaptive coping styles and an increase in adaptive behaviors and cognitions.

Implications

Reduction in maladaptive schemas and coping stiles significantly improves mental health and overall wellbeing and stability (Mirović, 2015). Being that mental health and wellbeing significantly influence our performance, we believe that these kinds of preventive couching programs could have a very positive influence on musicians' performances as well.

References

- Mirović, T., Mešković, D. i Bogunović, B. (2018). Psihološki profil kao psihološki identitet muzičara? [Psychological Profile as Musicians' Psychological Identity]. U *Muzički identiteti. Tematski zbornik radova sa 20. Pedagoškog foruma scenskih umetnosti* (str. 99-109). Beograd: Fakultet muzičke umetnosti.

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Keywords: Schema therapy, musician's mental health, well-being, performance.

Tematska sesija 8
FUNKCIJE MUZIKE I PSIHOLOŠKA DOBROBIT

Thematic Session 8
FUNCTIONS OF MUSIC AND
PSYCHOLOGICAL WELLBEING

Funkcije muzike i psihološka dobrobit studenata

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Teorijske osnove

Slušanje muzike je jedna od najvažnijih aktivnosti u slobodno vreme u grupi adolescenata. S obzirom na to da muzika ima više funkcija, ona može ispuniti različite emocionalne i socijalne potrebe adolescenata i na taj način poboljšati njihovu psihološku dobrobit. Postojeće studije pokazale su da muzika ima uticaj na emocije i da pomaže pri suočavanju sa stresom, što može biti od posebnog značaja za adolescente koji se često uz pomoć muzike oslobađaju besa, tuge ili razočarenja (Lacourse, Claes, & Villeneuve, 2001). Na osnovu dva teorijska okvira, Burovih funkcija muzike (Boer, Fischer, Tekman, Abubakar, Njenga, & Zenger, 2012) i Rifove teorije psihološke dobrobiti (Ryff, 1989), ovo istraživanje nastoji da ostvari bolji uvid u odnos između funkcija muzike i psihološke dobrobiti u specifičnom kontekstu adolescencije.

Ciljevi

Cilj istraživanja je testiranje hipoteze da funkcije muzike mogu predvideti psihološku dobrobit u adolescenciji, kontrolišući pri tome pol i studijski program.

Metod

Uzorak se sastoji od 740 studenata iz Slovenije i Hrvatske ($M_{uzrast} = 20.85$, $SD = 2.15$) koji su popunjavali RESPECT muzičku skalu (Boer et al., 2012), PWBS (Ryff, 1989) i PANAS (Watson, Clark, & Tellegen, 1988) u okviru univerzitetskih predavanja.

Rezultati

Rezultati su pokazali da funkcije muzike ne objašnjavaju autonomiju ($R = .14$, $p > .05$), ali imaju značajnu prediktivnu vrednost u objašnjavanju varijanse ličnog rasta ($R = .26$, $p < .05$), pozitivnih odnosa sa drugima ($R = .34$, $p < .05$) i smisla života ($R = .22$; $p < .05$). Aspekt muzike koji je u funkciji izražavanja političkih stavova negativan je prediktor ličnog rasta, pozitivnih odnosa sa drugima i smisla života. Pozitivni odnosi sa drugima delom se mogu objasniti korišćenjem muzike u svrhu ostvarivanja socijalnih odnosa sa prijateljima i porodicom i, manjim delom, u svrhu izražavanja ličnih vrednosti. Porodični odnosi kao funkcija muzike, potvrđeni su kao značajan prediktor koji objašnjava varijansu smisla života kao faktora u okviru PWB. Pozitivan i negativan afekt objašnjeni su spiritualnim i emocionalnim funkcijama muzike, dok su porodični odnosi i lične vrednosti kao funkcije muzike značajni prediktori isključivo negativnog afekta.

Zaključci

Funkcije muzike pokazale su se kao značajne u predikciji psihološke dobrobiti u adolescenciji. Rezultati su dati u kontekstu teorijskog modela funkcija muzike i psihološke dobrobiti, sa posebnim naglaskom na sistematičnom i planskom korišćenju muzike kao načina za poboljšanje psihološke dobrobiti u adolescenciji.

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Ključne reči: funkcije muzike, psihološka dobrobit, PANAS, studenti univerziteta.

Functions of music and psychological well-being in students

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Background

Listening to music is one of the most important leisure activities for adolescents. Since music has different functions, it can fulfill a variety of adolescents' emotional or social needs, thus, enhancing their psychological well-being. Previous studies showed that music can regulate emotions and help to cope with stress which can be especially important for adolescents who often use music to relief their anger, sadness or disappointments (Lacourse, Claes, & Villeneuve, 2001). Starting from two theoretical frameworks, Boer's functions of music (Boer, Fischer, Tekman, Abubakar, Njenga, & Zenger, 2012) and Ryff's theory of psychological well-being (PWB) (1989), this research aims to get deeper insight into the relationship between functions of music and PWB in specific context of adolescence.

Aims

The aim of this study was to test the hypothesis that functions of music predict PWB in adolescence by controlling gender and the study program.

Method

A total of 740 Slovene and Croatian students ($M_{age} = 20.85$, $SD = 2.15$) filled out RESPECT music scale (Boer et al., 2012), PWBS (Ryff, 1989) and PANAS (Watson, Clark, & Tellegen., 1988) during their university lessons.

Results

The results showed that functions of music do not explain the autonomy ($R = .14$; $p > .05$) but have a significant predictive value in explaining the variance of a personal growth ($R = .26$, $p < .05$), positive relationships with others ($R = .34$, $p < .05$), and the meaning of life ($R = .22$, $p < .05$). Specifically, using music as a function of expressing political attitudes represents an autonomous negative predictor of personal growth, positive relationships with others and the meaning of life. Positive relationships with others can be partially explained by using music for social bonding with friends and family, and less by using music for expressing personal values. Family relations as a function of music had been confirmed as a significant predictor of explaining the variance of the meaning of life as a factor of PWB. Positive and negative affect were also explained by spiri-

tual and emotional functions of music, whereas family relations and personal values as functions of music were a significant predictor of negative affect.

Conclusions

Functions of music have proven their significance in predicting PWB in adolescence. Results were discussed in the context of the theoretical framework of functions of music and PWB with special emphasis on the systematic and planned use of music as a means of enhancing PWB in adolescence.

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Keywords: functions of music, psychological well-being, PANAS, university students.

Od stvaranja muzike do dobrobiti u svakodnevnom životu: posrednička uloga zadovoljenja potreba

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Teorijske osnove

O tome kako muzika može da obezbedi put ka afektivnoj dobrobiti je, uglavnom, istraživano u odnosu na slušanje muzike ili muzikoterapiju. I eksperimentalne i terenske studije su dokazale povezanost slušanja muzike i muzikoterapije sa izraženim emocionalnim blagostanjem (npr. Fredenburg & Silverman, 2014; Miranda & Gaudreau, 2011). Ipak, relativno malo se zna o efektima aktivnog stvaranja muzike na dobrobit u svakodnevnom životu ili njegove osnovne mehanizme. Teorija samoodređenja (Deci & Ryan, 2000) naglašava važnost ispunjenja osnovnih psiholoških potreba za autonomijom, kompetencijom i povezanošću kada je postizanje dobrobiti u pitanju. Ispunjavanje potreba može ponuditi vredan okvir za objašnjenje postulirane veze između stvaranja muzike i blagostanja.

Ciljevi

Svrha ove studije bila je da istraži efekte muzičkog stvaranja iz hobija na afektivnu dobrobit u svakodnevnom životu. Pored toga, cilj nam je bio da ispitamo ispunjavanje potreba za autonomijom, kompetencijom i povezanošću kao potencijalnim medijatorima ovog odnosa.

Metod

U dnevniku istraživanja na dnevnoj bazi, 1042 učesnika/muzičara iz hobija (uzrasta od 13 do 82 godine; 65.3% ženskog pola) svakodnevno su kompletirali onlajn procene tokom deset uzastopnih dana. Učesnicima je postavljeno pitanje da li su stvorili muziku istog dana i evaluirana je njihova potreba za stvaranjem na dnevnom nivou (skala balansirane mere psiholoških potreba, SBMPP), kao i pozitivan i negativan uticaj (raspored pozitivnih i negativnih uticaja, RPNU).

Rezultati

Rezultati ukazuju da su zadovoljenje potreba i pozitivan uticaj bili veći, dok su nezadovoljenje potreba i negativan afekat bili manji tokom dana kada su učesnici prijavili muzičko stvaranje ($p < .05$). Modeli višestepenih strukturnih jednačina ukazuju da je efekat na pozitivni uticaj posredovan zadovoljenjem sve tri potrebe, sa indirektnim efektima preko autonomije i kompetencije na unutrašnjem i međuljudskom nivou ($p < .05$) i povezanosti isključivo na međuljudskom nivou ($p < .05$). Ne postoje statistički značajna posredovanja efekata na negativni uticaj.

Zaključci

Ovo je prva studija koja pruža dokaze za izraženiju dobrobit muzičara kojima je muzika hobi, tokom dana kada stvaraju muziku. Rezultati dalje ukazuju na zadovoljenje osnovnih psiholoških potreba kao posredničkog mehanizma i naglašavaju razliku između pokazatelja pozitivnog (pozitivni uticaj, zadovoljenje potreba) i negativnog funkcionisanja (negativni uticaj, nezadovoljenje potreba).

* Dobitnica SEMPRESKE nagrade.

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Ključne reči: stvaranje muzike, afektivno blagostanje, samoodređenje, ambulatna procena, dnevnik istraživanja.

From music making to well-being in everyday life: The mediating role of need satisfaction

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Background

How music can provide a pathway to affective well-being has mainly been investigated with regards to listening to music or music therapy. Both experimental and field studies have reported evidence for an association of music listening and music therapy with higher emotional well-being (e.g., Fredenburg & Silverman, 2014; Miranda & Gaudreau, 2011). Still, comparatively less is known about the effects of active music-making on well-being in everyday life or its underlying mechanisms. Self-Determination Theory (Deci & Ryan, 2000) emphasizes the importance of fulfillment of the basic psychological needs for autonomy, competence and relatedness for well-being. Need fulfillment may thus offer a valuable framework for explaining the postulated link between music-making and well-being.

Aims

The purpose of the present study was to investigate the effects of hobby music-making on affective well-being in everyday life. In addition, we aimed to examine the fulfillment of the needs for autonomy, competence and relatedness as potential mediators of this relationship.

Method

In a daily-diary study design, 1042 hobby musicians (age range 13 to 82 years; 65.3% female) completed online assessments each day for ten consecutive days. The participants were asked whether they had made music on that day and evaluated their daily need fulfillment (Balanced

* SEMPRES Award participant.

Measure of Psychological Needs scale; BMPN) as well as positive and negative affect (Positive and Negative Affect Schedule; PANAS).

Results

Results showed that need satisfaction and positive affect were higher, while need dissatisfaction and negative affect were lower on days when participants reported music-making ($p < .05$). Multilevel structural equation models indicated that the effect on positive affect was mediated by the satisfaction of all three needs, with indirect effects via autonomy and competence at both the within- and between-person level ($p < .05$), and relatedness only at the between-person level ($p < .05$). There were no statistically significant mediation effects on negative affect.

Conclusions

This study is the first to provide evidence for higher well-being of hobby musicians on days of music-making. Results further suggest satisfaction of basic psychological needs as a mediating mechanism and emphasize the distinction between indicators of positive functioning (positive affect, need satisfaction) and negative functioning (negative affect, need dissatisfaction).

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Keywords: music-making, affective well-being, self-determination, ambulatory assessment, daily diary.

[Um i telo] ‘... su definitivno povezani!’

Studija slučaja primene aktivne muzikoterapije u svrhu tretmana hroničnog bola

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Teorijske osnove

Oboljenja praćena hroničnim bolom, kao što je fibromijalgija, progresivno postaju učestalije u modernom svetu. Konvencionalno lečenje podrazumeva farmaceutski pristup za ublažavanje simptoma. Međutim, to može imati nus pojave. Alternativni, bio-psiho-socijalni model, bol posmatra kao individualizovano stanje, a svi aspekti klijenta objedinjeni su u celinu (Cassell, 1998; Jay, 2005). U skladu sa tim, muzikoterapija podrazumeva pristup usmeren na klijenta. Na osnovu postojećih nalaza koji govore o analgetičkom dejstvu muzike (MacDonald, Mitchell, Dillon, Serpell, Davies, & Ashley, 2003) bilo bi poželjno dodatno istražiti ovu temu. Uprkos mnogobrojnim kvantitativnim studijama koje su fokusirane na hronični i akutni bol i slušanje muzike, manji je broj kvalitativnih studija koje koriste aktivni pristup u muzikoterapiji kao glavnu intervenciju.

Ciljevi

Cilj ovog istraživanja je sticanje uvida u to da li se aktivni pristup u muzikoterapiji može pokazati korisnim u ublažavanju bola. U ovoj studiji slučaja, klijentkinja koja boluje od fibromialgije, prisustvovala je seansama muzikoterapije u periodu od 12 nedelja. Cilj je bio istražiti koji uticaj je proces muzikoterapije imao na njen svakodnevni život i ublažavanje bola. Pored toga, pokušali smo da kroz muzičku aktivnost istražimo da li um utiče na telo u stvaranju simptoma bola i *vice versa*.

Metod

Prikupljeni podaci analizirani su uz pomoć Interpretativne fenomenološke analize (Smith & Osborn, 2015) sa ciljem otkrivanja značenja koje je terapijski proces imao za klijentkinju i kakve je efekte ostavio na njen život i na zlokobne simptome. Vizuelna analogna skala (VAS) korišćena je kao indikator intenziteta bola, pre i posle intervencija. Terapeutski pristup uglavnom je bio psihodinamski.

Rezultati

Rezultati su pokazali da je postojao prekid veza između uma i tela klijentkinje. Koristeći muziku kao intervenciju, klijentkinja i terapeut su pokušali da izgrade most i rekonstruišu veze između ova dva elementa. Kroz izazove u toku terapije, ona je uspela da razume kako i zašto nastaju njeni simptomi, a kao rezultat postala je sposobnija da se suoči sa bolom.

Zaključci

Psihodinamički orijentisana aktivna muzikoterapija pokazala se korisnom u tretmanu hroničnog bola, kao i u unapređivanju zdravlja, samosvesti i boljeg kvaliteta života date klijentkinje. Neophodno je, ipak, sprovesti više kvalitativnih studija na ovu temu, jer se značenja i okolnosti svakodnevnog života klijenata međusobno razlikuju.

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Ključne reči: muzikoterapija, hronični bol, fibromijalgija, odnos um-telo.

[The mind and the body] ‘... they are definitely connected!’ A case study of active music therapy towards the treatment of chronic pain

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Background

Chronic pain illnesses like fibromyalgia are progressively increasing in the modern world. The conventional treatments follow the pharmaceutical approach to alleviating the symptoms. However, side effects may appear. Alternatively, the bio-psychosocial model is regarding the pain as an individualized condition where all aspects of the client are integrated into a whole (Cassell, 1998; Jay, 2005). Music therapy is in line with this background as a client-centered approach. Having in mind that research has already shown that the analgesic quality of music exists (MacDonald, Mitchell, Dillon, Serpell, Davies, & Ashley, 2003), it would be fruitful to explore more this topic. Despite the numerous quantitative studies focusing on chronic and acute pain by using music listening, there are only a few qualitative studies using active music-making as the main intervention.

Aims

The purpose of this research was to explore whether active music therapy could prove beneficial in pain relief. In the case study, a client with fibromyalgia attended music therapy sessions for a period of twelve weeks. The aim was to explore what impact the music therapy process had on her lifeworld and in the treatment of the pain. In addition, an attempt was made to explore through music whether the mind influences the body in creating the pain symptom and *vice versa*.

Method

The collected data were analyzed by using Interpretative Phenomenological Analysis (Smith & Osborn, 2015) focusing on the meaning that the therapeutic process had for the client and the effects it had on her life and on the malicious symptoms. The Visual Analogue Scale (VAS) was used as an indication of the pain intensity before and after the intervention. The background of the therapist was mostly psychodynamic.

Results

The results have shown that there was a disconnection between her mind and her body. Using music as an intervention, the client and the therapist tried to build a bridge and reconstruct the fragmented links between these two elements. By challenging her during the therapy, she gained and understanding of how and why the symptoms are created and as a result, she became more capable to cope with the pain.

Conclusions

Psychodynamically oriented active music therapy has proven to be beneficial in the treatment of chronic pain and into promoting health, self-awareness and a better quality of life on this particular client. However, more qualitative studies are needed because the personal meaning and the lifeworld of each client is unique.

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Keywords: music therapy, chronic pain, fibromyalgia, mind-body connection.

Lečenje traume: muzikoterapija kao sredstvo podizanja samopoštovanja kod izbeglica sa psihijatrijskim problemima

Panajotis Papas

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Teorijske osnove

Rastući broj izbeglica, podnosilaca zahteva za azil i migranata predstavlja savremeni globalni fenomen koji je posledica političkih, religijskih i društvenih zbivanja. Usled traumatskih iskustava, pripadnici ovih populacija su skloniji razvijanju psihotičnih simptoma u odnosu na opštu populaciju, što rezultira smanjenjem samopoštovanja (Nygaard, Sonne, & Carlsson, 2017). Stoga, neophodno je pružiti podršku očuvanju i poboljšanju mentalnog zdravlja pripadnika ove populacije (Dieterich-Hartwell & Koch, 2017).

Ciljevi

Cilj studije bilo je ispitivanje efekata grupne muzikoterapije na samopoštovanje izbeglica, migranata i tražilaca azila kod kojih su ustanovljeni psihijatrijski problemi. Prilikom terapije, glas je korišćen kao glavni muzički instrument, pri čemu su tehnike improvizacije (Carrol & Lefebvre, 2013) korišćene za kreiranje osećaja sigurnosti u terapijskoj grupi, kao i za uspostavljanje efektivnog kanala komunikacije u terapijskom kontekstu (Orth, 2015).

Metod

U studiji je korišćen eksperimentalni dizajn sa jednom grupom. Ispitanici uzrasta 24-25 godina ($N = 5$) su učestvovali u grupnoj terapiji u periodu od 6 nedelja, uz vokalne muzikoterapijske intervencije (Austin, 2016) u transkulturalnoj psihijatrijskoj ustanovi u Holandiji. Da bi ispitanik bio uključen u uzorak, morao je: (a) da bude prepoznat kao izbeglica, tražilac azila ili migrant; (b) da ima dijagnostikovani psihijatrijski poremećaj i bude korisnik usluga interkulturalne klinike za mentalno zdravlje. Samopoštovanje ispitanika procenjavano je kvantitativno, pomoću Rozenbergove skale (RS, Rosenverg, 1965). Podaci su analizirani u SPSS statističkom softveru. Kvalitativni podaci prikupljeni su individualnim i grupnim posmatranjem ispitanika na seansa u periodu od dve nedelje. Informacije o nivou socijalne interakcije, praćenju pravila ponašanja i ispunjavanja obaveza prikupljene su od osoblja klinike i predstavljale su dodatnu potporu za interpretaciju rezultata dobijenih na RS.

Rezultati

Grupna vokalno-muzička terapija imala je pozitivan efekat na samopoštovanje ispitanika. Skorovi ispitanika na Rozenbergovoj skali bili su značajno viši na kraju tretmana, posle 6 nedelja, u odnosu na početak tretmana. Osoblje klinike je izveštavalo o višem nivou socijalnog obavezivanja ispitanika nakon svake seanse, višu spremnost da deluju, kao i poboljšanje u donošenju odluka prilikom obavljanja svakodnevnih obaveza u okviru kliničke jedinice.

Zaključci

Grupna muzikoterapija pokazuje pozitivne efekte na samopoštovanje u ovoj grupi učesnika. Po završetku terapije, nivo procenjenog samopoštovanja ispitanika bio je viši u odnosu na procenjeni nivo na početku terapije. Iako su pokazani pozitivni efekti, u narednim istraživanjima biće neophodno uzeti u obzir ograničenja ove studije, poput veličine uzorka i nedostatka kontrolne grupe.

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Ključne reči: muzikoterapija, glas, izbeglice, PTSP, samopoštovanje.

Healing the trauma: Music therapy for boosting self-esteem in refugees with psychiatric needs

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Background

The rising number of refugees, asylum seekers and migrants is nowadays a global phenomenon arising from political, religious, and social reasons. Considering the traumatic experiences, the above-mentioned population has been found to be more prone to psychotic symptoms than the general population, resulting in a decrease of self-esteem (Nygaard, Sonne, & Carlsson, 2017). Therefore, there is a need to support the population in order to improve their mental health (Dieterich-Hartwell & Koch, 2017).

Aims

The purpose of this study is to examine whether Group Music Therapy can influence the self-esteem of refugees, migrants and asylum seekers with reported psychiatric needs. The approach used voice as the main musical instrument during therapy by using improvisation techniques (Carroll & Lefebvre, 2013), to create a sense of security in the treatment group and build effective communication channels within the therapeutic context (Orth, 2005).

Method

The study has an experimental single group design. In a transcultural psychiatric facility in the Netherlands, participants (aged 24-54, $N = 5$) undertook group therapy for a period of 6 weeks with vocal music therapy interventions (Austin, 2016). Criteria for participation were: (a) to be recognized as a refugee, asylum seeker or migrant; (b) to be diagnosed with a psychiatric disorder and under the care of an intercultural mental health clinic. To monitor participants' self-esteem levels, the Rosenberg scale (RS) was used as a quantitative validated evaluation tool (Rosenberg, 1965). Data were imported and analyzed in SPSS. Qualitative data derived from individual and group observation of the participants during the sessions every two weeks. Caregivers provided information regarding the levels of social interaction, the ability to follow rules and assume duties in the unit, which was helpful information for interpretations of RS results.

Results

The application of group vocal music therapy had an effective increase in self-respect and self-esteem of the participants. Upon completion of treatment weeks in the unit, increased Rosenberg Scale scores were observed (in week 6) in comparison to the initial results (week 1). Caregivers reported a higher social commitment of participants after the end of each session, higher willingness to act, as well as improved decision-making while completing daily duties in the unit.

Conclusions

Music therapy in a group setting appears to have an effect on raising the self-esteem levels in this group of participants. At the end of the therapy, participants reported increased results on the Rosenberg Self-Esteem Scale compared to the baseline. Despite the positive results recorded, it is important to take into consideration the limited sample size and the lack of a control group. Further research should address these limitations.

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Keywords: music therapy, voice, refugees, PTSD, self-esteem.

Tematska sesija 9
MUZIKA I REGULACIJA AFEKTA

Thematic Session 9
MUSIC AND AFFECT REGULATION

Funkcionalna regulacija afekta pri vežbanju muzike: verovanja muzičara o korisnosti emocija i strategijama regulacije emocija

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Teorijske osnove

Literatura koja se bavi emocionalnom regulacijom često naglašava motivaciju pojedinaca da povećaju prijatnost i smanje negativni efekat emocija. Ovaj naglasak je razumljiv s obzirom na to da je neprijatan afekat prediktivan za probleme mentalnog zdravlja (Tamir, Mitchell, & Gross, 2008). Međutim, u porastu su istraživanja čiji rezultati podržavaju alternativni, funkcionalni pristup emocionalnoj regulaciji, kada je osoba motivisana da doživi specifične (ponekad i negativne) emocije ukoliko veruje da postoji dobrobit koja će iz toga proizaći. U kontekstu sporta, dešava se da trkači govore o strategijama povećavanja intenziteta ljetnje pre takmičenja. Ove strategije su povezane se njihovim meta-emocionalnim verovanjima da ljetnja doprinosi izvođenju (Lane, Beedie, Devonport, & Stanley, 2011). Iz primenjene perspektive, postoji mnogo konteksta u kojima emocionalno stanje može uticati na izvođenje i gde znanje o instrumentalnoj korisnosti emocija može biti upotrebljivo. Muzička praksa je jedan od tih konteksta, gde ostvarivanje ciljeva vežbanja može biti izazovno, tehnički zahtevno i, ipak, visoko nagrađujuće. Ipak, ponašanja vezana za emocionalnu regulaciju, specifično u vežbanju muzike, još uvek ne dobijaju značajnu empirijsku pažnju.

Ciljevi

Cilj ove studije je da ispita odnose između verovanja muzičara o korisnosti emocija pri vežbanju muzike i njihovoj upotrebi u okviru strategija emocionalne regulacije. Ova studija je deo većeg projekta koji ima za cilj da razvije obuhvatno razumevanje ponašanja i ishoda povezanih sa strategijama emocionalne regulacije koje koriste muzičari kako bi ostvarili svoje ciljeve.

Metod

Prikupljanje podataka za ovaj projekat je još uvek u pripremi. Upitnici strategija emocionalne regulacije, muzičko iskustvo i verovanja o korisnosti emocija tokom vežbanja biće zadati studentima muzike i iskusnim profesionalnim muzičarima. Odnosi između ovih koncepta biće ispitivani korišćenjem multivarijantne analize varijanse.

Rezultati

Rezultati se očekuju nakon prikupljanja podataka. Ipak, na osnovu prethodnog istraživanja, verovatno je da izbor strategije emocionalne regulacije muzičara zavisi od verovanja o korisnosti emocija u postizanju ciljeva vežbanja. Pored toga, kada vežbaju za specifičan cilj/zadatak, muzičari verovatno teže ka tome da regulišu emocije koje promovišu dostizanje cilja, bez obzira na hedonistički učinak. Nalazi povezani sa ulogom muzičkog iskustva u odnosu na emocionalnu regulaciju tretirani su kao eksplorativni.

Zaključci

Ova studija ima potencijal da nas informiše o obimu doprinosa funkcionalne perspektive emocionalne regulacije u izboru strategija afektivne regulacije koje koriste muzičari kao deo svog vežbanja. Ispitivanjem uverenja studenata i iskusnih profesionalnih muzičara može se stvoriti

moгуćnost da se identifikuju emocije kojima muziĉari daju prioritet u ostvarenju određenih ciljeva, te kako su ove emocije povezane sa muziĉkim treningom i iskustvom. U kontekstu promocije zdravlja, dobrobiti i produktivnosti tokom veŹbanja, studentima muzike i pedagozima moŹe biti korisno da razumeju dugoroĉne prednosti i mane selektovanja određenih emocionalnih stanja za koje veruju da mogu biti korisna za praksu. Nalazi ovog projekta koji je u toku mogu obezbediti studentima muzike nove veŹtine za bolje postizanje ciljeva veŹbanja.

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Ključne reĉi: regulacija afekta, muziĉko veŹbanje, emocije, verovanja.

Functional affect regulation in music practice: Musicians' beliefs about emotion utility and emotion regulation strategies

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Background

Emotion regulation literature often emphasizes individuals' motivation to increase pleasant and decrease negative affect. This emphasis is understandable, as unpleasant affect is predictive of mental health problems (Tamir, Mitchell, & Gross, 2008). However, research increasingly supports an alternative, functional approach to emotion regulation, where individuals are motivated to experience specific (and sometimes negative) emotions if they believe there is a benefit in doing so. In sport contexts, runners may report strategies to increase anger before competitions. These strategies are linked to their meta-emotion beliefs that anger benefits performance (Lane, Beedie, Devonport, & Stanley, 2011). From an applied perspective, there are many contexts in which emotional state can impact performance, and where knowledge of the instrumental benefits of emotions could be useful. Music practice is one such context, where pursuing practice goals can be challenging, technically demanding, and yet highly rewarding. However, emotion regulation behaviours specifically in music practice have yet to receive substantial empirical attention.

Aims

The aim of this study is to examine relationships between musicians' beliefs about the utility of emotions in music practice, and their use of emotion regulation strategies. This study is a part of a larger project that aims to develop a comprehensive understanding of behaviors, and outcomes associated with emotion regulation strategies used by musicians in the pursuit of their practice goals.

Method

At the time of writing, data collection for this project is currently in preparation. Prospectively, questionnaire measures of emotion regulation strategies, musical experience, and beliefs about emotion utility in practice will be administered both to students of music and experienced professional musicians. Relationships between these concepts will be investigated using multivariate analysis of variance.

Results

Currently, the findings of this study are pending. However, based on previous research, it is plausible that a musician's choice of emotion regulation strategy depends on their beliefs about the utility of emotions in achieving practice goals. Additionally, when practicing for a specific goal, musicians may seek to regulate emotions that promote the attainment of that goal, regardless of hedonic impact. Findings related to the role of musical experience in emotion regulation behaviour are treated as exploratory.

Conclusions

This study has the potential to inform us of the extent to which a functional perspective of emotion regulation can account for the choice of affect regulation strategies used by musicians as part of their practice. By assessing the beliefs of both students and experienced professional musicians, it may be possible to identify specific emotions that musicians prioritize for pursuing certain goals, and how these emotions relate to musical training and experience. In the context of promoting health, well-being and productivity during practice, music students and educators may benefit from an understanding of any long-term advantages and disadvantages of selecting to experience emotional states they believe are useful for practice. Findings from this ongoing project may equip music students with novel skills for better pursuit of their practice goals.

References

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Keywords: affect regulation, music practice, emotion, beliefs.

Emocionalni ishodi privatnog slušanja muzike: uzorkovanje iskustva pomoću MuPsych aplikacije

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Teorijske osnove

Privatno slušanje muzike na mobilnim telefonima naglo je poraslo u poslednjoj deceniji i sada je glavna komponenta svakodnevnog slušanja muzike. Ovaj prenosivi i fleksibilni stil slušanja muzike omogućava momentalni odabir muzike koja ispunjava emocionalne potrebe, predstavljajući ga kao moćan resurs za regulaciju emocija. Da li je ova regulacija korisna za slušaoca je pitanje od temeljne važnosti, jer su deficiti u regulaciji emocija – i upotreba maladaptivnih strategija – blisko povezani sa razvojem mnogih oblika psihopatologije, uključujući poremećaje raspoloženja i ličnosti. Zato je važno razumeti kako privatno slušanje muzike utiče na emocije, kao i razumeti koja kombinacija varijabli predviđa željene emocionalne ishode.

Ciljevi

Ova studija je imala za cilj da razvije sveobuhvatni model analize slušanja muzike na mobilnim telefonima, sa detaljima o tome kako se različiti emocionalni ishodi proizvode kroz interakciju muzike, konteksta i individualnih varijabli. Na taj način, ona ima za cilj da poboljša i proširi prvi model analize privatnog slušanja muzike koji su razvili Randal i Rikard (Randall & Rickard, 2017).

Metod

Svi podaci su prikupljeni pomoću MuPsych, aplikacije koja uzorkuje iskustva, dizajnirane za realno vreme i ekološki validno merenje privatnog slušanja muzike (Randal & Rikard, 2013). Ovom metodom postavljana su pitanja u konkretnom trenutku slušanja muzike, koja su se odnosila na promenu emocija (valencu, pobuđenost i intenzitet kategorije raspoloženja) tokom petominutnog perioda slušanja, zajedno sa kontekstualnim varijablama, razlozima za slušanje i strategijama regulacije. Aplikacijom su takođe procenjivane pojedinačne varijable preko upitnika o ličnosti i mentalnom zdravlju.

Rezultati

Za određivanje prediktora emocionalnih ishoda na nivou iskustva i slušalaca korišćeno je modelovanje strukturalnim jednačinama. U skladu sa dosadašnjim nalazima modela (Randall & Rickard, 2017), pokazano je da slušanje muzike vodi valencu i pobuđenost u pravcu neutralnog statusa, a da je taj efekat ograničen kroz selekciju muzike koja je u skladu sa raspoloženjem. Uživanje u muzici je pozitivno predviđeno pažnjom ($\beta = .324$) i poznavanjem ($\beta = .306$), dok su promene u specifičnim stanjima raspoloženja predviđene različitim sklopovima individualnih i kontekstualnih varijabli. Varijacije u emocionalnim ishodima su u velikoj meri određivane varijablama na nivou iskustva, podržavajući ideju da varijable konteksta treba uzeti u obzir prilikom istraživanja emocionalnih ishoda slušanja muzike.

Zaključci

Ovaj poboljšani model analize je pružio detaljno razumevanje kako privatno slušanje muzike utiče na emocionalna stanja i kako se to odnosi na dugoročno emocionalno zdravlje i dobrobit.

Ovo istraživanje postavlja osnovu za buduće aplikacije u personalizovanim strategijama muzičke regulacije kao i za pravljenje *playlista* za *striming* muzike.

Reference

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Ključne reči: privatno slušanje muzike, regulacija emocija, sakupljanje iskustava.

Emotional outcomes of personal music listening: Experience sampling with the MuPsych app

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Background

Personal music listening on mobile phones has grown rapidly over the last decade and is now a central component of everyday music listening. This portable and flexible style of listening allows for the immediate selection of music to fulfill emotional needs, presenting it as a powerful resource for emotion regulation. Whether this regulation is beneficial for the listener is of fundamental concern, as deficits in emotion regulation – and the use of maladaptive strategies – are closely tied to the development of many forms of psychopathology, including mood and personality disorders. It is therefore of importance to understand how emotions are influenced by personal music listening, and the combination of variables that predict desirable emotional outcomes.

Aims

The current study aimed to develop a comprehensive model of personal music listening on mobile phones, detailing how various emotional outcomes are produced through an interaction of music, context, and individual variables. In doing so, it aimed to improve and expand upon the first model of personal music listening, developed by Randall & Rickard (2017).

Method

All data were collected through MuPsych, an experience sampling app designed for the real-time and ecologically valid measurement of personal music listening (Randall & Rickard, 2013). This method presented questions at the exact moment of music listening, which assessed change in emotion (valence, arousal, and intensity of a categorical mood state) over a five-minute listening period, along with contextual variables, reasons for listening, and regulation strategies. The app also assessed individual variables through questionnaires on personality and mental health.

Results

Multilevel structural equation modeling was utilized to determine the predictors of emotional outcomes on both experience and listener levels. In accordance with the previous model find-

ings (Randall & Rickard, 2017), music listening was found to bring both valence and arousal towards a neutral state, and this effect was reduced through the selection of mood-congruent music. Enjoyment of music was positively predicted by attention ($\beta = .324$) and familiarity ($\beta = .306$), while changes in specific mood states were predicted by different sets of individual and context variables. Variation in emotional outcomes was determined largely by variables on the experience level, supporting the notion that context variables should be considered when investigating emotional outcomes of music listening.

Conclusions

This improved model has provided a detailed understanding of how personal music listening influences emotional states, and how this relates to longer-term emotional health and well-being. This research lays the foundation for future applications in personalized music regulation strategies and playlist curation for music streaming services.

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- Randall, W. M., & Rickard, N. S. (2013). Development and trial of a mobile experience sampling method (m-ESM) for personal music listening. *Music Perception: An Interdisciplinary Journal*, 31, 157-170.

Keywords: personal music listening, emotion regulation, experience sampling.

Pesme koje se smatraju opuštajućim: muzičke karakteristike, stihovi i mehanizmi doprinosa

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Teorijske osnove

Način na koji slušamo muziku brzo se menjao poslednjih godina, s tim da onlajn emitovanje postaje sve dominantnije. Pored povećanja dostupnosti za slušaoce, umnožavanje onlajn servisa omogućava i lakši pristup podacima za muzičke analize. Sve veći broj istraživanja pokazuje da svakodnevno slušanje muzike služi različitim funkcijama, od regulacije uticaja do društvenog povezivanja (Schäfer, Sedlmeier, Städtler, & Huron, 2013). Konkretnije, redukcija stresa je prilično relevantna u savremenom svetu, a nedavne studije su ukazale na važnost adekvatnih muzičkih izbora (Baltazar, Västfjäll, Asutay, Koppel, & Saarikallio, 2019).

Ciljevi

Ova studija je imala za cilj da identifikuje karakteristike muzike koje pojedinci percipiraju kao povoljne za opuštanje i da ih uporede sa karakteristikama muzike za koju se smatra da nije povoljna za navedeno. Štaviše, studija je imala za cilj da istraži mogućnosti koje nude usluge Programskog interfejsa aplikacije (PIA) kao što su Spotify i genius.com, kao izvora za dalje istraživanje.

Metod

Podaci su prikupljeni putem onlajn ankete. Učesnici su dali primere muzičkih dela koja bi im pomogla da se smire u stresnoj situaciji i onih koji im nikako ne bi pomogli. Od njih se tražilo da procene doprinos nekoliko muzičkih mehanizama (ne)efikasnosti primera. Muzičke karakteristike su izvučene iz interfejsa za programiranje aplikacije Spotify (PIA), a stihovi su preuzeti iz PIA genius.com. Izvršeno je više diskriminativnih analiza da bi se definisale funkcije koje maksimiziraju razlike između dva uzorka (opuštajuće i ne-opuštajuće muzike).

Rezultati

Diskriminativne funkcije za Spotify karakteristike, varijable stihova i mehanizmi koji su u osnovi muzike bili su statistički značajni (redom, Wilks' lambda: .842, $\chi^2(9) = 35.116$, $p < .001$; Wilks' lambda: .922, $\chi^2(7) = 19.769$, $p = .006$; Wilks' lambda: .598, $\chi^2(10) = 201.462$, $p < .001$). Opuštajuća i neopuštajuća muzika može da se razlikuje po Spotify karakteristikama, tako da je opuštuća muzika bila niža u: *energiji, jačini, pozitivnoj valenci, plesnosti, govornjivosti*. Pored toga, opuštuća muzika je bila viša u *akustičnosti i instrumentalnosti*. Što se tiče stihova, opuštuća muzika je imala manje reči. Sentimentalnost stihova nije značajno korelirala sa ekstrahovanom funkcijom. Štaviše, ocena učesnika o mehanizmima na kojima se zasniva efekat relaksacije pokazala je da su visoke ocene *estetike, žanra, poznatosti i akustičkih karakteristika* predviđale opuštuću, dok su visoke ocene *ritma* predviđale ne-opuštuću muziku.

Zaključci

Rezultati su u skladu sa prethodnim istraživanjima o indukciji emocija kroz muziku (npr. Västfjäll, 2002), te sugerišu da postoje neki zajednički elementi između indukcije emocija kroz muziku odabranu od strane eksperimentatora i emocionalnu regulaciju kroz samo-izabranu mu-

ziku. Važno je napomenuti da je ispitivanje samo-odabrane muzike omogućilo da se identifikuju aspekti koji se ne mogu analizirati samo na zvučnom nivou.

Reference

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- Västfjäll, D. (2002). Emotion induction through music: A review of the musical mood induction procedure. *Musicae Scientiae*, 5 (1), 173-211.

Ključne reči: emocionalna regulacija, karakteristike, tekst, genius.com, muzički mehanizmi, opuštanje, Spotify.

Songs perceived as relaxing: Musical features, lyrics, and contributing mechanisms

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Background

How we listen to music has been changing rapidly in the last years, with online streaming becoming more predominant. Besides the gain in accessibility for the listeners, the growth of online services also affords easier access to data for musical analyses. A growing body of research has been showing that daily life music listening serves varied functions, from affect regulation to social bonding (Schäfer, Sedlmeier, Städtler, & Huron, 2013). More specifically, the reduction of stress responses is quite pertinent in the contemporary world, and recent studies have highlighted the importance of adequate musical choices (Baltazar, Västfjäll, Asutay, Koppel, & Saarikallio, 2019).

Aims

This study aimed to identify the characteristics of music that individuals perceive as favorable to relax and to compare it to the characteristics of music perceived as unfavorable to relax. Furthermore, the study was intended to explore the possibilities offered by APIs of services such as Spotify and genius.com as sources for further research work.

Method

Data were collected through an online survey. The participants provided examples of musical pieces that would help them to calm down in a stressful situation and examples that would not help them at all. They were asked to assess the contribution of several musical mechanisms to the (in)efficacy of the examples. The musical features were pulled from the Spotify application programming interface (API) and the lyrics were retrieved from the genius.com API. Multiple discriminant analyses were performed to define the functions that maximize the differences between the two samples (relaxing and non-relaxing music).

Results

The discriminant functions for Spotify features, lyrics variables, and underlying mechanisms were statistically significant (respectively, Wilks' lambda: .842, $\chi^2(9) = 35.116$, $p < .001$; Wilks' lambda: .922, $\chi^2(7) = 19.769$, $p = .006$; Wilks' lambda: .598, $\chi^2(10) = 201.462$, $p < .001$). Relaxing and non-relaxing music could be distinguished by Spotify features, so that relaxing music was lower in *energy*, *loudness*, *positive valence*, *danceability*, *speechness*. Additionally, relaxing music was higher in *acousticness* and *instrumentalness*. As for the lyrics, relaxing music had lower lyrical density. Lyrics' sentiment did not correlate significantly with the extracted function. Moreover, participants' rating of mechanisms underlying the relaxation effect revealed that high scores on *aesthetics*, *genre*, *familiarity* and *acoustic features* predicted relaxing music, whereas high scores on *rhythm* predicted non-relaxing music.

Conclusions

The results are in line with previous research on emotion induction through music (e.g. Västfjäll, 2002), suggesting that there are some common elements between emotion induction through experimenter-selected music and emotion regulation through self-chosen music. Importantly, examining self-chosen music allowed to identify aspects that cannot be analyzed solely at the sonic level.

References

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Keywords: emotional regulation; features; genius.com; lyrics; musical mechanisms; relaxation; Spotify.

Poređenje efekata regulisanja afekata samo-izabranom muzikom i muzikom izabranom od strane istraživača

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Teorijske osnove

Rasprostranjenost stresa i anksioznosti među mladim ljudima sve više zabrinjava. Postoji potreba za ekonomičnom i lako pristupačnom intervencijom kontrole stresa za ovu populaciju. Slušanje muzike se sve više prepoznaje kao efikasan metod za regulaciju stresa i emocija (Baltazar & Saarikallio, 2019; Miranda, 2019).

Ciljevi

Većina prethodnih studija muzičke regulacije afekata koristila je stimulanse klasične relaksirajuće muzike (Juslin & Laukka, 2003). Ipak, u svakodnevnom životu ljudi prave sopstveni izbor muzike koju slušaju radi regulacije afekta (Schäfer & Sedlmeier, 2009). Stoga, da bi se razumeo efekat muzike na regulaciju afekta u svakodnevnom životu, efekat samo-izabrane muzike se mora ispitati. Svesnost (eng. *mindfulness*) poboljšava regulaciju (Keng, Smoski, & Robins, 2011) i ova studija po prvi put ispituje vezu između slušanja muzike i stanja svesnosti koje nastaje neposredno nakon pojave stresora.

Metod

U studiji 1, 70 učesnika je nasumično raspoređeno u jednu od tri situacije: 'relaksirajuća' muzika izabrana od strane istraživača, samo-izabrana muzika, ili tišina kao kontrolna situacija (17–53 godine, $M_{uzrast} = 20.5$, $SD = 4.95$). U studiji 2, efekti muzike su upoređeni sa aktivnom kontrolnom situacijom (slušanje radio emisije) ($N = 75$, 17–34 godine, $M_{uzrast} = 20.23$, $SD = 3.15$). Negativan afekt bio je indukovao pripremom govora i aritmetičkim zadatkom, praćen slušanjem muzike ili kontrolom. Samo-izveštaj o anksioznosti i krvni pritisak mereni su na početku, zatim posle indukcije i, na kraju, posle intervencije. Studija 2 uključuje i stanje svesnosti kao zavisnu varijablu.

Rezultati

Rezultati 3 (inicijalni nivo, post-indukcija, post-intervencija) x 3 (muzika izabrana od strane istraživača, samo-izabrana muzika, kontrolna situacija) mešovite analize varijanse ukazuju na postojanje interakcije između faktora ($F(4,134) = 4.65$, $p = .002$, $\eta_p^2 = .12$) za stanje anksioznosti. *Post-hoc* test je identifikovao porast anksioznosti u fazi nakon indukcije anksioznosti, u sve tri situacije (svi $p < .001$). Anksioznost značajno opada za ispitanike koji su slušali muziku (svi $p < .001$), ali ne i za one koji su bili u uslovima kontrolisane tišine ($p = .077$). Nema razlike u fazi nakon intervencije između samo-izabrane muzike i one izabrane od strane istraživača ($p = .953$). Muzika ne smanjuje anksioznost u poređenju sa aktivnom kontrolom u studiji 2 ($F(4,144) = 1.70$, $p = .15$). Međutim, slušanje muzike značajno povećava nivo stanja svesnosti ($F(4,144) = 3.15$, $p = 0.02$, $\eta_p^2 = .08$), bez obzira na to da li je u pitanju samo-izabrana muzika ili ona izabrana od strane istraživača ($p = .887$). Hijerarhijska regresija ukazuje da porast svesnosti, porast slušanja muzike i njihova interakcija objašnjavaju 29% varijanse u anksioznosti posle intervencije ($F(3,46) = 6.37$, $p = .001$, $R^2 = .29$). Postoji pozitivan efekat rastuće svesnosti na anksioznost, ali jedino kod samo-izabrane muzike ($b = -.532$, $SE = .142$, $t(46) = -3.75$, $p < .001$).

Zaključci

Samo-izabrana i muzika izabrana od strane istraživača obezbeđuju regulaciju afekta u pripremi za stresne događaje. Ipak, rezultati Studije 2 ukazuju na druge aktivnosti koji imaju slične dobiti i pokazuju, po prvi put, da slušanje muzike povećava svesnost neposredno nakon pojave stresne situacije. Dodatno, povećana svesnost predviđa nižu anksioznost kod ispitanika koji su slušali samo-izabranu muziku.

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Ključne reči: anksioznost, stres, suočavanje, slušanje muzike, svesnost.

Comparing the affect regulating effects of self-selected and researcher-selected music

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Background

The prevalence of stress and anxiety among young people is of growing concern. There is a need for cost-effective and easily accessible interventions for stress management for this population. Music listening is increasingly recognized as an effective method of stress and emotion regulation (Baltazar & Saarikallio, 2019; Miranda, 2019).

Aims

The vast majority of previous studies of musical affect regulation have employed classical relaxing music stimuli (Juslin & Laukka, 2003). Yet, in everyday settings, people choose their own music to listen to for affect regulation (Schäfer & Sedlmeier, 2009). Therefore, to understand the effects of music on regulation in everyday life, the effects of self-selected music must be examined. Mindfulness improves regulation (Keng, Smoski, & Robins, 2011), and this study explores for the first time the link between music listening and state mindfulness following a stressor.

Method

In Study 1, 70 participants were randomly assigned to one of three conditions: researcher-selected 'relaxing' music, self-selected music, or a silent control condition (17–53 years, $M_{age} = 20.5$, SD

= 4.95). In Study 2, effects of music were compared with an active control (listening to a radio show) ($N = 75$, 17-34 years, $M_{age} = 20.23$, $SD = 3.15$). Negative affect was induced using a speech preparation and arithmetic task, followed by music listening or control. Self-reported anxiety and blood pressure were measured at baseline, post-induction, and post-intervention. Study 2 included state mindfulness as a dependent measure.

Results

The results of a 3 (baseline, post-induction, post-intervention) x 3 (researcher-selected, self-selected, control) mixed ANOVA revealed a significant interaction effect ($F(4,134) = 4.65$, $p = .002$, $\eta_p^2 = .12$) for state anxiety. Post-hoc tests indicated a significant increase in anxiety post-induction in all conditions (all $p < .001$). Anxiety decreased significantly for participants listening to music (all $p < .001$), but not for those in the silent control condition ($p = .077$). There were no differences in post-intervention anxiety between self-selected and researcher-selected music ($p = .953$). Music did not reduce anxiety compared to an active control in Study 2 ($F(4,144) = 1.70$, $p = .15$). However, music listening significantly increased levels of state mindfulness ($F(4,144) = 3.15$, $p = 0.02$, $\eta_p^2 = .08$), and there was no significant difference in mindfulness between self-selected and researcher-selected music ($p = .887$). Hierarchical regression found that mindfulness increase, music listening increase and their interaction predicted 29% of the variance in anxiety post-intervention ($F(3,46) = 6.37$, $p = .001$, $R^2 = .29$). There was a positive effect of increasing mindfulness on anxiety, but only in self-selected music listening ($b = -.532$, $SE = .142$, $t(46) = -3.75$, $p < .001$).

Conclusions

Self-selected and researcher-selected music both provide regulation in preparation for stressful events. Yet, the results of Study 2 indicate other activities have similar benefits, and shows, for the first time, that music listening increases mindfulness following a stressor. Further, increased mindfulness predicted less anxiety for participants listening to self-selected music.

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Keywords: anxiety, stress, coping, regulation, music listening, mindfulness.

Tematska sesija 10
MUZIKA U SVAKODNEVNOM ŽIVOTU

Thematic Session 10
MUSIC IN EVERYDAY LIFE

Muzičke preferencije i aktivnosti adolescenata tokom slobodnog vremena

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Teorijske osnove

Muzika igra značajnu ulogu u slobodnom vremenu adolescenata s obzirom na vreme koje oni provode slušajući muziku, prateći teme o muzici u medijima i kroz bavljenje vannastavnim aktivnostima i hobijima (sviranje, komponovanje i pevanje) (Schwartz & Fouts, 2003). Iz sociokulturne perspektive muzika je značajno kulturno sredstvo za razvoj ličnosti naročito u domenu vrednosti i estetskih standarda (North & Hargreaves, 2008). Neki autori tvrde da se nova generacija adolescenata razlikuje od prethodnih u pogledu muzičkih preferencija i praksi koje se tiču novih vrsta muzike i novih medija (Petrović & Kuzmanović, 2009).

Ciljevi

Cilj studije je da se identifikuju grupe mladih koje se razlikuju po svojim muzičkim preferencijama i/ili aktivnostima koje se tiču muzike.

Metod

Uzorak obuhvata 1356 srednjoškolaca. Iz upitnika o slobodnom vremenu, konstruisanog za ovu studiju, izdvojena su 23 ajtema koja se odnose na muzičke preferencije, vannastavne aktivnosti i hobije.

Rezultati

Klaster analiza je korišćena kako bi se identifikovale grupe adolescenata na osnovu muzičkih preferencija, bavljenja muzikom i praćenja muzičkih tema u različitim medijima. Izdvojene su četiri grupe ispitanika čije su razlike utvrđene preko tri statistički značajne funkcije. Uz pomoć njih, 80% uzorka je ispravno klasifikovano. Adolescenti koji pripadaju prvoj grupi slušaju metal, pank i rok muziku, ne slušaju narodnu muziku i ne sviraju (15% uzorka). Druga grupa sluša folk muziku, ali ne i tehno, elektro i hip-hop muziku (24%). Treća grupa preferira narodnu muziku i prati muzičke teme u medijima (27%). Konačno, najzastupljenija četvrta grupa ispitanika (32% uzorka) ne sluša narodnu muziku, ne prati muzičke teme i nema jasne muzičke preferencije.

Zaključci

Naši rezultati pokazuju da je moguće razlikovati mlade prema muzičkim orijentacijama za razliku od predviđanja o nepostojanju različitih preferencija kod sadašnje generacije adolescenata (Petrović & Kuzmanović, 2009). Očigledno je da su dve grupe adolescenata naklonjene narodnoj muzici, kao i da jedna od njih prati muzičke teme u medijima. To implicira snažan uticaj medija na preferencije adolescenata, što je u skladu sa istraživanjima njihovih idola (Stepanović, Blažanin & Mojović, 2017). To takođe nameće pitanje o kvalitetu sadržaja koji se plasiraju kroz savremene medije. Trećina adolescenata nije zainteresovana za muziku. Pored toga, naši podaci pokazuju da se mladi retko bave muzikom što ostavlja malo mesta za razvoj interesovanja i angažovanja koja mogu biti povezana sa konceptima pozitivnog razvoja i strukturiranog provođenja slobodnog vremena (Larson, 2000; Stebbins, 1997).

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Ključne reči: muzičke preferencije, bavljenje muzikom, adolescenti, slobodno vreme, pozitivan razvoj mladih.

Adolescents' music preferences and activities during leisure time

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Background

Music plays an important role in adolescents' leisure time concerning the time they spend in listening to music, following music themes in media and engaging themselves in extra-curricular music activities and hobbies (playing, composing, singing) (Schwartz & Fouts, 2003). From a socio-cultural perspective, music represents a significant cultural tool for personal development, especially in the domains of values and aesthetic standards (North, & Hargreaves, 2008). Some authors claim that the present adolescent generation differs from the previous generations in terms of music preferences and practices concerning new types of music and new media (Petrović & Kuzmanović, 2009).

Aims

Our main goal was to detect adolescents' groups regarding their interests and engagement in music activities.

Method

The sample includes 1358 secondary school students. From the questioner, developed for the wider study of free time of adolescents, 23 items related to music preferences and activities (extracurricular, hobbies) were selected.

Results

Cluster analysis was used in order to identify adolescent groups on the basis of their preferences, engagement with music and following of music themes in different media. Analysis identified 4 groups of youngsters that were interpreted through 3 statistically significant discriminative functions, and 80% of the respondents were classified correctly. The first adolescent group prefers metal, punk and rock music, don't listen to folk music and don't play music (15% of the sample).

The second group listens to folk music and do not prefer techno, electro and hip-hop music (24%). The third group prefers folk music and follows musical themes on media (27%). Finally, the largest fourth group (32% of the sample) doesn't listen to folk music, doesn't follow musical themes and, besides that, does not have any clear musical tendencies and preferences.

Conclusions

Our results show that it is possible to differentiate adolescents regarding their music orientations unlike some predictions about the lack of various preferences within the new young generation (Petrović & Kuzmanović, 2009). It is obvious that two groups of respondents incline toward folk music and that one of them follows themes about music in media. This implies the strong media influence on adolescents' preferences, which is in accordance with youth idols research results (Stepanović, Blažanin & Mojović, 2017), and raises a question about the quality of contents in contemporary media. One-third of adolescents is not interested in music. Besides, our data show that adolescents rarely take part in activities and hobbies related to music which leaves no space for the development of interests and engagement that could be associated with the concepts of positive development and structurally founded leisure time activities (Larson, 2000; Stebbins, 1997).

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Keywords: music preferences, musical practices, adolescents, leisure time, positive youth development.

Može li utešna muzika delovati kao estetska zamena za prijateljsku empatiju?

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Teorijske osnove

Socijalna izolacija je rastuće društveno pitanje sa ogromnim posledicama po fizičko i mentalno zdravlje pojedinaca. Iako mediji možda nisu stvoreni za ublažavanje usamljenosti, knjige (Gabriel & Young, 2011) i televizijski programi (Derrick, Gabriel, & Hugenberg, 2009) su već pokazali da pružaju društvo svojoj publici. Do sada, nije bilo istraživanja o efektima privatnog slušanja muzike na osećanja usamljenosti, iako ljudi obično slušaju poznate melodije kako bi se nosili sa socijalnom izolacijom (npr. Derrick et al., 2009).

Ciljevi

Cilj ovog istraživanja je bio da se ispita da li privatno slušanje samo-izabrane muzike može da pruži društvo, koje se reflektuje na smanjenje usamljenosti i bolje raspoloženje. Dalje, želeli smo testirati tvrdnju da je naročito utešna muzika tip muzike koji služi kao zamena za empatičnog prijatelja u situacijama interpersonalnog poremećaja (Lee, Andrade, & Palmer, 2013).

Metod

Ove hipoteze su testirane u eksperimentu sa 3×2 faktorskim dizajnom sa indukovanom emocijom i strategijom regulacije emocija muzikom kao neponovljenim faktorima. Prva grupa je vizualizovala društveni gubitak, jer je pretpostavljeno da to promoviše izbor tužne muzike koja pruža društvo (Lee, Andrade, & Palmer, 2013). Da bi se napravila razlika između socijalnih i ne-socijalnih iskustava gubitka, druga grupa je zamišljala da je izgubila vid. Kontrolna grupa je predvidela emocionalno neutralan scenario. Sve vizualizacije su sprovedene kroz odobreni zadatak vođene slike (DeMarco, Taylor, & Friedman, 2015). Nakon toga, učesnici su bili upućeni da se ili uteše ili odvrte od loših misli slušanjem samo-izabrane muzike. Psihometrijske mere za raspoloženje i usamljenost prikupljene su pre istraživanja, nakon indukcije emocija i nakon slušanja muzike. Podaci ($N = 90$) su analizirani pomoću mešovite analize varijanse.

Rezultati

Statističke analize su otkrile da samostalno angažovanje sa izborom muzike dovodi do značajnog smanjenja usamljenosti slušalaca, značajnog poboljšanja raspoloženja i podsticanja saosećajnih procesa, što podržava ideju da slušanje muzike može pružiti društvo i pokrenuti mentalne društvene procese. Rezultati nisu podržali tvrdnju da utešna muzika posebno deluje kao zamena za prijatelja. Međutim, obe strategije regulacije afekta nude slične socijalne dobrobiti, što je u skladu sa doprinosima socijalne muzičke kognicije.

Zaključci

Uzimajući sve u obzir, aktuelna otkrića potvrđuju čvrstu vezu između muzičke i socijalne kognicije i potkrepljuju ideju o muzici kao virtualnom prijatelju.

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Ključne reči: usamljenost, slušanje muzike, regulacija emocija.

Can consoling music act as an aesthetic surrogate for an empathic friend?

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Background

Social isolation is a growing societal issue with tremendous consequences for individuals' physical and mental well-being. Although media may not be created to alleviate loneliness, books (Gabriel & Young, 2011) and television programs (Derrick, Gabriel, & Hugenberg, 2009) have already been shown to provide company to their audiences. So far, there has been no research on the effect of private music listening on feelings of loneliness, even though people commonly engage with familiar melodies to cope with social isolation (e.g., Derrick et al., 2009).

Aims

The aim of this study was to investigate whether private listening to self-selected music can provide a company that reflects in a reduction of loneliness and better mood respectively. Further, we wanted to test the claim that consoling music, in particular, is the type of music that serves as a surrogate for an empathic friend in situations of interpersonal disruption (Lee, Andrade, & Palmer, 2013).

Method

These hypotheses were tested in an experiment with a 3×2 factorial design with induced emotion and musical affect regulation strategy as between subject factors. The first group visualized a social loss as this is presumed to promote the choice of sad, company-providing music (Lee, Andrade, & Palmer, 2013). In order to differentiate between social and non-social loss experiences, the second group imagined losing their eyesight. The control group envisioned an emotionally neutral scenario. All visualizations were implemented through an approved guided imagery task (DeMarco, Taylor, & Friedman, 2015). Afterwards, the participants were instructed to either console or distract themselves by listening to self-selected music. Psychometric measures for mood and loneliness were collected prior to the study, after the emotion induction, and after the music listening. Data ($N = 90$) were analysed with mixed model ANOVAs.

Results

The statistical analyses revealed that solitary engagement with self-selected music lead to a substantial reduction of the listeners' loneliness, a significant improvement of mood, and gave rise to sympathetic processes which support the notion that music listening can provide company and trigger mental social processes. The results did not support the claim that especially comforting pieces act as surrogates for a friend. However, both affect regulation strategies offered comparable social benefits which are in line with accounts of social music cognition.

Conclusions

Taken together, the current findings corroborate the tight link between musical and social cognition and substantiate the idea of music as a virtual friend.

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Keywords: loneliness, music listening, emotion regulation.

Uloga muzičkih videa u svakodnevnom slušanju

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Teorijske osnove

Praćenje muzičkih videa (MV) na društvenim medijskim platformama kao što je YouTube predstavljaju popularan metod slušanja muzike (Music Consumer Insight Report, 2018). Iako postoji veliki broj istraživanja koja su ispitivala upotrebu muzike u cilju regulisanja afekta (Saarikallio, 2013), naročito kod mladih ljudi (Saarikallio & Erkkilä, 2007), muzički psiholozi nisu istraživali način na koji MV funkcioniše u tom kontekstu. Empirijska istraživanja pokazala su da uparivanje muzike sa vizuelnim stimulusima ima značajnog uticaja na percipiranje i pamćenje muzike u budućim slušalačkim epizodama (Boltz, Ebendorf & Field, 2009). To upućuje na činjenicu da MV iskustva mogu uticati na naredna iskustva slušanja, čak i kada video više nije prisutan.

Ciljevi

Studija ima za cilj da stvori teorijski okvir za razumevanje MV slušalačkog iskustva kod mlade publike; ona je usmerena na razloge zbog kojih neko bira MV pre nego druge metode slušanja, kognitivne i emocionalne procese koji se javljaju tokom tog iskustva, kao i potencijalne 'prenosne' efekte koje MV nameće narednim audio slušalačkim iskustvima. U radu se, takođe, ispituje i kako crte ličnosti i upotreba muzike u svrhu emocionalnog zdravlja posreduju valentnost i trajanje ovih iskustava.

Metod

Kvalitativni podaci prikupljeni su od ispitanika ($N = 33$) koji imaju između 15 i 27 godina ($M = 22.4$). Istraživački okvir je konstruisan korišćenjem abduktivnog pristupa; analiza je bila usmerena na identifikaciju značajnih tema i uzročnih veza u podacima, u cilju utvrđivanja obrazaca iskustava i zajedničkih ishoda među ispitanicima. Crte ličnosti i upotreba muzike u svrhu emocionalnog zdravlja izmerene su upotrebom instrumenata *Inventar ličnosti sa deset ajtema* (TIPI; Gosling, Rentfrow, & Swann, 2003) i *Skala zdrava-nezdrava muzika* (HUMS; Saarikallio, Gold, & McFerran, 2015).

Rezultati

Analize su pokazale da MV ima dugoročne implikacije na buduća slušalačka iskustva kroz kreiranje novih asocijacija u vezi sa muzikom. Viši skorovi na skali nezdravog stila slušanja bili su u vezi sa dugoročnim negativnim uticajem MV iskustava na buduće slušalačko iskustvo, dok su ispitanici sa nižim skorom nezdravih iskustava u manjoj meri ili nimalo iskusili značajne promene u domenu budućeg slušalačkog iskustva.

Zaključci

Ovaj rad identifikuje nekoliko karakteristika MV slušalačkog iskustva, stvarajući novo znanje o modernom slušalačkom kontekstu. Rezultati razvijaju naše razumevanje ličnih značenja i afektivnog uticaja svakodnevnog slušanja muzike.

* ESCOM nagrada za istraživača na početku karijere.

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Ključne reči: muzički videi, afekat, kognicija, svakodnevno slušanje.

The function of music videos in everyday listening

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Background

Streaming music videos (MV) on social media platforms such as YouTube continues to be a popular method of music listening (Music Consumer Insight Report, 2018). Although a large body of research exists examining the use of music for affect regulation (Saarikallio, 2013), especially in young people (Saarikallio & Erkkilä, 2007), how MVs function in this context has gone unexplored by music psychologists. Empirical research has shown that pairing music with visual stimuli has a significant influence on how the music is perceived and remembered in future listening episodes (Boltz, Ebendorf & Field, 2009). This suggests MVs experiences may influence subsequent listening episodes, even when the video is no longer present.

Aims

The study aims to create a theoretical framework for understanding MV listening experiences in youth audiences; it addresses the individual's reason for choosing MVs over other listening methods, the cognitive and emotional processes that occur during the experience, and potential carry-over effects imposed by the MV in subsequent audio-only listening episodes. The study also examines how traits such as personality and use of music for emotional health, mediate the valence and duration of these experiences.

Method

Qualitative questionnaire data were collected from subjects ($N = 33$) aged between 15 and 27 ($M = 22.4$). The framework was constructed using an abductive approach; analysis was directed at identifying significant themes and causal relationships in the data in order to identify patterns of experiences and common outcomes among participants. Personality traits and use of mu-

* ESCOM Early Career Researcher Award.

sic for emotional health were measured using the *Ten Item Personality Measure* (TIPI; Gosling, Rentfrow, & Swann, 2003) and *Healthy-Unhealthy Music Scale* (HUMS; Saarikallio, Gold, & McFerran, 2015).

Results

The analysis revealed that MVs had long term implications on future listening experiences by creating new associations with the music. High scores in unhealthy listening style were connected to experiences of MV's having long-term negative impacts on future listening episodes, whereas individuals with low unhealthy scores experienced fewer or no significant changes on future listening episodes.

Conclusions

The study identified several characteristics of MV listening experiences, providing new knowledge about this modern listening context. The results elaborate on our understanding of the personal meanings and affective impacts of everyday music listening.

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Keywords: music videos, affect, cognition, everyday listening.

Uloga pevanja u životima adolescenata: sopstvene percepcije

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Teorijske osnove

Adolescencija je kritični period života, obeležen relevantnim fizičkim, kognitivnim, emocionalnim i socijalnim promenama. Adolescenti eksperimentišu sa novim odnosima i novim oblicima postojanja u svetu. Njihova grupa vršnjaka i prijatelja postaje sve važniji prostor za identifikaciju (Blos, 1985; Fleming, 2005; Matos, 2002). Adolescenti se okreću svom unutrašnjem svetu i izoluju se u svom sopstvenom prostoru ili se mešaju sa drugima formirajući grupne odnose, kako bi spoznali za sebe. Muzika dobija relevantan značaj u doživljavanju emocija, izdržavanju emocionalne patnje i identifikovanju sa njihovim uzorima (*role models*).

Istraživana su pokazala brojne prednosti muzičke prakse (slušanje, pevanje, sviranje) za razvoj adolescenata (Hallam, 2015). Muzika je stalno društvo jer ima sposobnost da adolescente prenese u zamišljene svetove. Muzika doprinosi razvoju identiteta, uspostavljanju međuljudskih odnosa i upravljanju raspoloženjem (Hargreaves & North, 1999). Iako pevanje može ponekad biti negativno iskustvo, kada se praktikuje u školama i u takmičarskom kontekstu (Mito & Boal-Palheiros, 2013), obično ima psihološke koristi vezane za intrapersonalno i interpersonalno komuniciranje, kao i za razvoj identiteta (Welch, 2011; Welch & Preti, 2018).

Ciljevi

Cilj ove studije je da se shvati koliko je praksa pevanja relevantna u životu adolescenata, istražujući njihove pevačke aktivnosti u svakodnevnom životu, njihovu percepciju o sopstvenim pevačkim iskustvima i ulogu pevanja u razvoju identiteta.

Metod

Učesnici koji su se dobrovoljno prijavili za učešće u ovoj studiji bili su devetnaestogodišnjaci, muški i ženski adolescenti od 13 i 14 godina koji pohađaju državne škole u Portu. Polustrukturisani intervju je sproveden kroz pitanja otvorenog tipa o pevanju u svakodnevnom životu: zašto pevaju, uživaju li u pevanju i zašto, koje značenje ima pevanje za njih i njihova pevačka iskustva?

Intervjui su se sprovodili u školi tako što su snimani na traku i potpuno su transkribovani. Odgovori su analizirani putem analize sadržaja (Bardin, 2011). Kategorije odgovora su prvo izrađene od strane svakog istraživača nezavisno, nakon čega je njihova objektivnost proverena testom pouzdanosti između procenivača.

Rezultati

Rezultati pokazuju da je pevanje, često povezano sa slušanjem muzike, katarzična aktivnost koja pomaže adolescentima da se osećaju bolje. Oni više vole da pevaju sami kod kuće, u svojoj spavaćoj sobi, ili sa svojim prijateljima, i da uživaju u zadovoljstvu zbog učestvovanja u ovoj aktivnosti. Za većinu njih, bez obzira na percepciju svojih vokalnih veština, pevanje je veoma važno, uglavnom zbog društva i sreće koju pruža. Učesnici pevaju pesme svojih omiljenih pevača, sa kojima se identifikuju, i biraju muzičke stilove svojih vršnjaka, a ne svojih roditelja. Kao što su saopštili

mnogi učesnici, pevajući, oni prelaze na imaginarne faze i isprobavaju nove načine postojanja i prikazivanja sebe.

Zaključci

Sve u svemu, adolescenti pevaju jer je pevanje korisno za njih, pomaže im da upravljaju svojim emocionalnim raspoloženjem i da uspostavljaju svoju intrapersonalnu i interpersonalnu komunikaciju. Pevanje takođe omogućava prepoznavanje osećanja i osećaja pripadnosti, koji umanjuje osećanje usamljenosti.

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Ključne reči: adolescenti, pevanje, identitet, svakodnevni život.

The role of singing in the lives of adolescents: Their own perceptions

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Background

Adolescence is a critical period of life, marked by relevant physical, cognitive, emotional and social changes. Adolescents experiment with new relationships and new forms of being in the world. Their group of peers and friends become an increasingly important space for identification (Blos, 1985; Fleming, 2005; Matos, 2002). Adolescents turn to their inner world and isolate themselves in their own space or they mix up with others forming group relationships, to know about themselves. The music gains a relevant significance in getting through emotions, enduring the anguish and identifying to their role models.

Research has shown numerous benefits of musical practice (listening, singing, playing) for the development of adolescents (Hallam, 2015). Music is a permanent company because it has the capacity of transporting them to imagined worlds. Music contributes to identity development, establishing interpersonal relationships, and managing moods (Hargreaves & North, 1999). Although singing may at times be a negative experience, when practiced in schools and in

competitive contexts (Mito & Boal-Palheiros, 2013), it usually has psychological benefits related to both intrapersonal and interpersonal communication, as well as identity development (Welch, 2011; Welch & Preti, 2018).

Aims

This study aims to understand to what extent the singing practice is relevant in the lives of adolescents, by investigating their singing activities in everyday life, their perceptions about their singing experiences and the role of singing in identity development.

Method

Participants who volunteered for this study were nineteen 13 and 14-year-old female and male adolescents attending public schools in Porto. A semi-structured interview was carried out with open questions about singing in their everyday life: why they sing, if they enjoy singing and why, the meaning of singing for them, and their singing experiences.

The interviews took place at school and they were tape-recorded and fully transcribed. The responses were analysed by content analysis (Bardin, 2011). The response categories were first devised by each researcher independently, and their objectivity was checked through inter-rater reliability test.

Results

The results suggest that singing, often associated with music listening, is a cathartic activity, which helps adolescents feel better. They prefer to sing alone at home, in their bedroom, or with their friends, and they enjoy the pleasure of participating in this activity. For most of them, regardless of their perceptions of their vocal skills, singing is very important, mainly because of the company and the happiness it provides. Participants sing the songs of their favourite singers, with whom they identify, and they choose the musical styles of their peers, rather than their families. As many participants reported, while singing they move to imaginary stages, where they try out new ways of being and representing themselves.

Conclusions

In sum, adolescents sing because singing is beneficial to them, helping them to manage their emotional mood and to establish their intrapersonal and interpersonal communication. Singing also helps them to identify their feelings and a sense of belonging, which decrease their feelings of loneliness.

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Key words: adolescents, singing, identity, everyday life.

Nevoljna muzička imaginacija na koncertu

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Teorijske osnove

Koncerti imaju potencijal da izazovu snažna iskustva muzike (Gabrielson & Wik, 2003), jer se radi o dubinskim iskustvima i prilikama kada publika usmerava pažnju i uživa (Pitts, 2016). Nijedna studija do sada nije ispitivala da li publika ,zadržava' u glavi muziku posle koncerta. Ipak, studije nevoljne muzičke imaginacije (NMI) pokazuju viši nivo saopštavanja o NMI posle izvođenja uživo, posebno kada se radi o sofisticiranijoj publici (Williamson & Müllensiefen, 2012). Pored toga, pokazano je da su postojeća izloženost i poznavanje muzike povezani sa pojavom NMI, nekoliko dana posle izloženosti/slušanja (Byron & Fowles, 2015).

Ciljevi

Ova studija ispituje nastanak nevoljne muzičke imaginacije (NMI) posle izvođenja uživo, poredеći je sa slušanjem muzike online. Ovo je prva studija koja istražuje potencijalne razlike u nastajanju NMI posle slušanja iste muzike, uživo ili u snimljenom formatu. Ova studija će obezbediti uvid ne samo u oblasti NMI već i u oblasti iskustva publike.

Metod

Iskustvo NMI tokom muzičkog izvođenja uživo je bilo mereno ispitivanjem publike na više koncerata u Bridžvoter sali u Mančesteru, Ujedinjeno Kraljevstvo. Odgovori, prikupljeni posle koncerata uživo, poređeni su sa odgovorima druge grupe ispitanika (međugrupne razlike) koji su slušali istu muziku, ali samo audio deo i to, online. Prikupljanje podataka u obe situacije slušanja muzike (SM) je obavljeno online upitnikom: jedno pre SM, jedno odmah posle i jedno dan posle SM. Upitnik pre i odmah posle SM je merio stepen poznatosti, pažnju, uživanje, svidanje, dok je upitnik dan posle SM merio nastajanje NMI i da li su ispitanici zadržali aspekte SM u sećanju.

Rezultati

Inicijalni rezultati studije sa koncerta sugerišu da je 74% ispitanika izvestilo da su imali ,muziku u glavi' i 37% je odgovorilo da se ona odnosila na muziku sa koncerta ($n = 139$). Međutim, kada su koncerti analizirani odvojeno, efekti nisu bili homogeni i varirali su između 12% i 48% na različitim koncertima. Koncert koji je odabran da bude poređen sa online studijom je bio onaj sa najvećim brojem ispitanika ($n = 67$) i koji je, slučajno, imao i najviši broj saopštenih NMI sledećeg dana (80%) kao i najviši broj NMI posle samog koncerta (48%). Rezultati iz online studije ($n = 38$) pokazuju niži stepen NMI (50%) dan posle, kao i neposredno posle koncerta (34%).

Zaključci

Kao što je bilo i očekivano, efekat NMI posle koncerta je bio viši, ali dalja analiza je potrebna kako bi se ustanovilo da li su poznavanje kompozicije, muzičko obrazovanje/iskustvo, slušanje muzike (žanr i svidanje) i pažnja tokom slušanja, u korelaciji sa saopštenim NMI.

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Ključne reči: nevoljna muzička imaginacija, uporno ponavljanje muzike u glavi (*earworm*), iskustvo publike, slušanje muzike uživo.

Involuntary musical imagery in concert

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Background

Concerts have the potential of evoking strong experiences with music (Gabrielson & Wik, 2003) as they are an immersive experience, and one that the audience will pay attention to and enjoy (Pitts, 2016). No study so far has investigated whether audiences have the music from the concert in their head afterward. However, studies on involuntary musical imagery (INMI) show higher levels of reported INMI after live performances, particularly in more sophisticated audiences (Williamson & Müllensiefen, 2012). Moreover, exposure and familiarity have also been shown to correlate with the occurrence of INMI, after a few days of the exposure (Byron & Fowles, 2015).

Aims

This study investigates the occurrence of involuntary musical imagery (INMI) after live performances, comparing it with online music listening. This is the first study to explore the potential difference in occurrences of INMI from the same music, experienced in either a live or recorded format, and this study will provide insight not only into the field of INMI but into the field of audience experience.

Method

Experiences of INMI during live music performance were measured by questioning multiple audiences attending events at The Bridgewater Hall in Manchester, UK. The responses gathered after the live concert hall performances were compared with responses from a second cohort (between subjects method) who listened to the same music, but audio-only via an online questionnaire. Data gathering was through online questionnaires in both listening experiences (LE): one before the LE, one immediately after, and one the day after the LE. The questionnaires before and right after the LE were assessing the level of familiarity, attention, enjoyment, liking, while the questionnaire the day after, was assessing the occurrence of INMI, and whether the participants retained aspects of the LE in memory.

Results

Initial findings from the concert study suggest that 74% of our participants reported having music in their head, and 37% of that was music from the concert ($n = 139$). However, when analyzing the separate concerts, the effect was non-homogeneous, and it varied between 12% and 48%

in different concerts. The concert that was chosen to be compared to the online study was the one with the highest number of participants ($n = 67$), and incidentally both the highest number of INMI reports on the next day (80%) and the highest number of INMI reports of music from the concert 48%. Results from the online study ($n = 38$) show lower rates in both INMI (50%) and related INMI from the LE (34%).

Conclusions

As expected, the effect of the INMI after the concert was higher, but further analysis is required to determine whether familiarity, musical training, music listening (genre and liking), and attention correlate with INMI reports.

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Keywords: involuntary musical imagery, earworms, audience experience, live music audience.

Efekat muzike na subjektivni doživljaj plesnih performansa*

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Teorijske osnove

Ples je osnovni oblik ljudske ekspresije koji uključuje ritmičke pokrete tela, često praćene muzikom. Postoje brojna istraživanja koja se bave plesom, ali nas u ovom radu interesuju ona koja se bave percepcijom plesa od strane publike. Raniji radovi (Vukadinović, 2013) pokazuju da publika različite vrste plesova doživljava drugačije (uključujući moderan balet, klasičan balet i flamenko). Tako recimo, flamenko doživljava kao slobodniji i ekspresivniji u pogledu emocija (Vukadinović, 2013). Kada su u pitanju muzika i performans, istraživanja pokazuju da je publici kod muzičkog performansa bitnija vizuelna informacija od auditivne (Tsay, 2013). Međutim, iako je muzika neodvojiva od plesa, nismo naišli na radove koji se bave efektima muzike na percepciju plesnog performansa.

Ciljevi

Kako su raniji radovi pokazali da postoji razlika u subjektivnom doživljaju različitih vrsta plesa, cilj ovog rada je utvrditi da li postoje razlike u pogledu efekata muzike kada se radi o različitim vrstama plesova: klasični balet, hip hop i savremeni ples.

Metod

Uzorak je prigodan i čini ga 45 studenata psihologije ($N_{\text{muški}} = 9$, $N_{\text{ženski}} = 36$), sa Filozofskog fakulteta u Nišu. Starost ispitanika kreće se u rasponu od 19 do 23 godine ($M = 19.27$, $SD = .69$). Ispitanicima je prikazano 6 plesnih performansa, po 2 za svaku vrstu plesa u prosečnom trajanju minut i 30 sekundi. Nakon odgledanog snimka, ispitanici su odgovarali na pitanje „Koliko je muzika uticala na vaše dopadanje ovog performansa?“ na 7-o stepenoj skali Likertovog tipa.

Rezultati

Analizom varijanse utvrđeno je da je efekat muzike na dopadanje različit za različite vrste plesa ($F(2) = 20.176$, $p < .000$). *Post hoc* testiranje je pokazalo da je ovaj efekat najveći za savremeni ples, gde se efekat muzike na dopadanje razlikuje statistički značajno i od baleta ($p = .011$) i od hip hopa ($p = .000$) a te razlike su u oba slučaja u korist savremenog plesa. Najmanji efekat muzika ostvaruje na dopadanje hip hop-a, koji se razlikuje statistički značajno takođe i od baleta ($p = .002$) i od savremenog plesa ($p = .000$), ali su te razlike u oba slučaja u korist ove dve vrste plesa.

Zaključci

Iz rezultata možemo da zaključimo da muzika koja prati performans ostvaruje različit efekat na dopadanje različitih vrsta plesova. Za dalje radove predlažemo uključivanje više vrsta plesa sa istom muzikom, kako bi proverili postoji li interakcija između plesnog performansa i muzike, ili muzika ostvaruje efekat na dopadanje nezavisno od plesa.

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Ključne reči: efekat muzike na dopadanje plesa, subjektivna procena publike, klasičan balet, savremeni ples, hip hop.

Effect of music on the subjective experience of dance performances*

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Theoretical introduction

As a basic form of human expression, dance includes rhythmic movements of the body, often accompanied by music. There are numerous studies of dance, but in this paper, we are interested in studies of the perception of dance by the audience. The earlier works (Vukadinović, 2013) show that the audience experiences various types of dances differently (the modern ballet, classical ballet and flamenco). For example, they perceived flamenco as freer and more emotionally expressive (Vukadinović, 2013). When it comes to music and performance, the results of previous studies show that the audience considers visual information as more important from auditive for musical performance (Tsay, 2013). Although music is inseparable from dance, we did not come across papers dealing with the effects of music on the perception of dance performance.

Aims of the study

As previous works showed a difference in the subjective experiences of different types of dance, the aim of this paper is to check whether there are differences of the effects of music between different types of dance: classical ballet, hip hop and contemporary dance.

Method

The sample is convenient and consists of 45 students of psychology ($N_{\text{male}} = 9$, $N_{\text{female}} = 36$), from the Faculty of Philosophy in Niš. The age range was from 19 to 23 years ($M = 19.27$, $SD = .69$). The participants were shown 6 dance performances, 2 for each type of dance, for an average duration of 1 minute and 30 seconds. After each performance, respondents answered the question “How much music influenced your preference for this performance?”, on the 7-point Likert's type scale.

Results

Analysis of Variance showed that the effect of music on performance preference is different for different types of dance ($F(2) = 20.176$, $p < .000$). Post hoc testing showed this effect is the biggest for contemporary dance, where the effect of music on preferences differs significantly from both ballet ($p = .011$) and hip hop ($p = .000$), and both differences are in the benefit of contemporary

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dance. The smallest effect of music is on liking hip hop, which differs statistically significant from ballet ($p = .002$) and contemporary dance ($p = .000$), but both differences are in favor of these two types of dance.

Conclusions

From the results of this paper, we can conclude that the music that follows the performance has a different effect on different types of dance. For further studies, we suggest including several types of dance with the same music, to check if there is an interaction between dance performance and music, or music has an effect on the preference of dance independently.

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Keywords: effect of music on dance preference, audience's subjective evaluation, classical ballet, contemporary dance, hip hop.

Emocionalni odgovor različitih generacija na masovne (partizanske) pesme

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Teorijske osnove

Jedna od prednosti muzike je mogućnost predstavljanja događaja, ličnosti, društvenih uslova i emocija (Gabrielsson and Lindstrom, 2001). S obzirom na podudarnost navedene konstatacije sa idejama soc-realizma, nameće se pitanje na koji način različite generacije emocionalno reaguju i kako vrednuju masovne pesme, kao paradigmu soc-realističke umetnosti (Hofman, 2005).

Ciljevi

Ciljevi ovog rada su: a) ispitivanje emocionalnog odgovora na masovne pesme; b) utvrđivanje estetsko-vrednosnih stavova o masovnim pesmama i sagledavanje razlika između mlade i starije grupe ispitanika po tom pitanju; c) utvrđivanje povezanosti konteksta i stepena slušanja masovnih pesama sa emocionalnim odgovorom i estetsko-vrednosnim stavovima.

Metod

Ukupni uzorak podeljen je na dva poduzorka ($N = 234$) ispitanika: „stariju“ grupu ($N = 83$) su činili ispitanici rođeni između 1946. (posle Drugog svetskog rata) i 1980. godine (godina Titove smrti) i „mlađu“ grupu ($N = 151$) ispitanici rođeni između 1981. (posle Titove smrti) i 2001. godine (punoletni građani u ovom trenutku). Od mernih instrumenata, korišćena su dva upitnika, popunjavana *online* (za dve uzrasne grupe) sa kombinovanim tipom pitanja i tri slušna primera (masovne pesme *Uz maršala Tita*, *Oj Kozaro* i *Steg partije*). Izbor pesama izvršen je na osnovu raznolikosti sadržaja: u prvoj se veliča vođa, u drugoj kolektiv, a u trećoj partijsko jedinstvo. U upitnicima je iskorišćena lista (Hunter and Schellenberg, 2010) sačinjena od 12 emocija (bes, depresija, dosada, mir, opuštenost, radost, sreća, strah, tuga, uzbuđenje, uznemirenost, zadovoljstvo) i ispitanici su na skalama od 1 do 5 izražavali svoju emocionalnu reakciju nakon slušanja svake od pesama.

Rezultati

Rezultati ukazuju da ne postoji značajna razlika između emocionalnog odgovora obe grupe ispitanika za sva tri zvučna primera. Estetsko-vrednosni stavovi dve grupe pokazuju da pozitivan doživljaj pesama prati i stav da je u masovnim pesmama opevano herojstvo i borbenost naroda. Izloženost slušanju masovnih pesama veća je kod grupe starijih ispitanika ($t(232) = 7.94, p = .000$). Njihov pozitivan stav prema pesmama povezan je sa asocijacijama na mladost i „bolja vremena“ i potencijalnim transferom iskustva iz primarnih porodica (slušanjem pesama u porodici) na sekundarne (uticajem na decu). Kod „mlađe“ grupe, pozitivan stav i emocionalni odgovor vezani su za učesnike koji su sami otkrili pesme ili ih slušali pod uticajem porodice.

Zaključci

Rezultati ukazuju na istovetnost emocionalnog odgovora obe grupe ispitanika, te otvaraju pitanje da li je aktuelan transgeneracijski transfer iskustava unutar porodice? Uočljivo je da, bez obzira na političku konotaciju i generacijsku razliku, postoji emocionalni naboj koji pesme prenose. Dakle, može se reći da masovne pesme, bez obzira na društveni kontekst i vremensku distancu

od njihovog nastanka, za obe grupe ispitanika reprezentuju borbenost, herojstvo, jedinstvo i veličanje zajedništva.

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Ključne reči: masovne/partizanske pesme, emocionalni odgovor, estetsko-vrednosni stav.

The emotional response of different generations to mass (Partisan) songs

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Background

One of the benefits of music is an ability to present events, personalities, social conditions and emotions (Gabrielsson and Lindstrom, 2001). Considering the coherence of this statement with the ideas of socialist realism art, the question is how different generations emotionally response and value mass songs (Hofman, 2005).

Aims

The goals of this research are to a) examine the emotional response to mass (Partisan) songs; b) determine aesthetic and value attitudes about mass songs, and to investigate differences between the two groups of participants, as to these two measures; c) determine the correlation between the context and level of listening of mass songs with the emotional response and aesthetic-values attitudes.

Method

The whole sample ($N = 234$) was divided into two subgroups of participants: 'older' group ($N = 83$) consisted of those who were born in a period from 1946 (after Second World War) till 1980 (Tito's death), and 'younger' group ($N = 151$) those born between 1981 (after Tito's death) and 2001 (full-aged citizens now). As research instruments two questionnaires were used, for two age groups (filled in *online*), with combined-type questions and three audio examples/segments of mass songs with various contents: *Uz Maršala Tita* (glorifies the leader), *Oj Kozaro* (glorifies collective) and *Steg Partije* (glorifies unity of/with party). On the list of 12 emotions (Hunter and Schellenberg, 2010) participants were expressing their emotional reaction (1-5 scale) after listening of each song: angry, depression, boredom, calm, relaxation, joy, happy, fear, sorrow, excitement, disquiet and pleasure.

Results

The results indicate that there is no significant difference between the emotional responses of the two groups. The aesthetic-value attitude shows that the positive experience of the songs is accompanied by the meaning that the content of mass songs is about heroism and unity. Exposure to listening to songs is higher in 'older' group ($t(232) = 7.94, p = .0001$). Their positive attitude was associated with their youth and 'better times' and with a transfer of listening experience (by listening songs in primary families) onto secondary families (influence on their children). In the 'younger' group, positive attitude and emotional response were related to respondents who have discovered songs by themselves or in their family.

Conclusions

The results indicate the identically emotional response in both groups, which opens a possibility to think about the trans-generational transfer of experiences within the family. It is noticeable that, regardless of the political connotation and generational difference, there is an emotional charge that mass songs (can) transmit. Therefore, mass songs, regardless of the social context and the distance from their origin, represent the heroism, unity and glorification of the community for both groups of participants.

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Keywords: mass songs, emotional response, aesthetically valuable attitude.

Muzika kulture porekla kao simbolički resurs u mobilnosti studenata

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Teorijske osnove

Odlaskom na studije u inostranstvo mladi se, pored akademskih, susreću sa značajnim izazovima u prilagođavanju na novi socio-kulturni kontekst (Mori, 2000). Održavanje kontakta sa sopstvenom kulturom porekla je važno zato što neki od značajnih negativnih iskustava uključuju osećaj da smo izgubili nešto poznato (Lewthwaite, 1996). Proces prilagođavanja na novu kulturu se može videti kao razvojna tranzicija u kojoj internalizovani kulturni elementi, poput domaće muzike, mogu biti korišćeni kao resursi za nošenje sa novim izazovima (Zittoun, 2006).

Ciljevi

Oslanjajući se na postavke socio-kulturne teorije, kao i prethodna istraživanja o simboličkim resursima (Zittoun, 2006), cilj ovog istraživanja bio je da otkrijemo načine na koje domaća muzika pomaže srpskim studentima na školovanju u inostranstvu u nošenju sa izazovima mobilnosti.

Metod

Radi boljeg razumevanja različitih funkcija koju domaća muzika može imati, koristili smo kvalitativan metodološki okvir u vidu polustrukturisanih intervjuva. Oni se tiču situacija u kojima su učesnici imali potrebu da slušaju domaću muziku, kao i posledica koje je ona imala po njih, a odgovori su analizirani pomoću tematske analize. Intervjui su sprovedeni sa 9 učesnika (5 momaka), uzrasta između 22 i 25 godina. Svi učesnici su Srbi koji su u proseku proveli 3 godine na studijama u različitim evropskim gradovima.

Rezultati

Analizom podataka izdvojile su se četiri glavne teme koje su u skladu sa nalazima Zitonove (2006): domaća muzika kao resurs za a) konstruisanje i održavanje interpersonalnih odnosa; b) regulaciju emotivnih stanja; c) održavanje veze sa prošlašću i d) regulaciju kulturnog identiteta. Domaća muzika najrasprostranjeniju ulogu ima pri formiranju novih prijateljstava, kao i održavanju veza sa osobama iz iste kulture. Ove namene su kulturno kodirane, te učesnici najčešće razmenjuju turbo-folk, world i ex-Yu rok muziku kao reprezentе svoje kulture. Slušanje i pevanje uz turbo-folk i ex-Yu rok je takođe praksa prilikom povezivanja sa drugim studentima sa Balkana. Uz to, folk muzika poput Lepe Brene ili Južnog vetra, kao i muzika koja ima ličnije značenje, što je u slučaju jednog ispitanika Darkwood Dub, koristi se kao 'lek' za nalete nostalgije, pri čemu ona najčešće ima utešnu funkciju. Za neke učesnike jugoslovenske pop pesme, kao i rep muzika, predstavljaju način povezivanja sa sećanjima iz detinjstva. Konačno, sržna uloga domaće muzike je u održanju i razvoju kulturnog identiteta tokom procesa adaptacije na novi socio-kulturni kontekst. Tako slušanjem rep muzike osoba može ispratiti promene u srpskoj subkulturi kojoj i dalje ima osećaj da pripada.

Zaključci

Ovi nalazi ukazuju na to da dok mladi koriste sličnu vrstu muzike za građenje i održavanje socijalnih odnosa i regulisanje nostalgije (funkcije koje su primarno oblikovane dominantnim kul-

turnim normama), neke ključnije psihološke funkcije slušanja domaće muzike su pre svega oblikovane prethodnim ličnim iskustvima i konstruisanim značenjima.

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Ključne reči: muzika, kultura, simbolički resursi, tranzicija, kvalitativna analiza.

Music from one's own culture as a symbolic resource in student mobility

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Background

By moving to study abroad, individuals face great challenges of adapting to a new socio-cultural environment besides academic ones (Mori, 2000). Staying in touch with their culture is important because some negative experiences include the feeling of losing something familiar (Lewthwaite, 1996). The process of adaptation to a new culture can be viewed as a developmental transition, in which internalized cultural elements, such as music, can be used as means of coping with new challenges (Zittoun, 2006).

Aims

Drawing from socio-cultural theory and previous research on symbolic resources (Zittoun, 2006), the aim of this study was to explore the ways in which music from their culture helps Serbian students in working through the challenges of mobility.

Method

In order to better understand the different functions that domestic music can have, we applied a qualitative methodology framework in the form of semi-structured interviews. They dealt with situations in which participants felt the need to listen to music from their culture and the effects it had on them. Data were analyzed using a thematic analysis. Interviews were conducted with 9 participants (5 men), aged 22-25. All participants were Serbian, having spent 3 years on average studying in different European cities.

Results

From the analysis four main themes, which were consistent with Zittoun's (2006) findings, emerged: music as a resource for a) constructing and maintaining interpersonal relationships; b) regulating emotional states; c) maintaining a connection with the past and d) regulating cultural identity. Music's most widespread role was in forming new relationships, as well as maintaining relations with people from one's own culture. These uses were culturally coded, with participants

exchanging turbo-folk, world music, as well as ex-Yu rock as the representative for their culture. Listening and singing to turbo-folk and ex-Yu rock was also prominent when connecting with other students from the Balkans. Folk music, such as Lepa Brena or Južni Vetar, as well as music with more personal meaning, such as Darkwood Dub, is used as a 'cure' for onsets of nostalgia, mainly playing a consoling role. For some participants, Yugoslavian pop and rock songs, as well as rap music, are a way to connect to childhood memories. Finally, a core role of music is in the maintenance and development of cultural identity during the process of adaptation to a new environment. For example, listening to rap music is a way to stay in touch with changes in Serbian subculture one still feels to be a part of.

Conclusions

These findings suggest that while students use similar types of music for building social relations and regulating nostalgia (which might be primarily shaped by dominant cultural norms), some more psychologically central functions of music use are shaped primarily by previous personal experiences and constructed meanings.

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Keywords: music, culture, symbolic resources, transitions, qualitative analysis.

Tematska sesija 11

PERCEPCIJA I KOGNICIJA
U KONTEKSTU MUZIČKE ANALIZE

Thematic Session 11

PERCEPTION AND COGNITION
IN A CONTEXT OF MUSIC ANALYSIS

‘Putanje’ se jednako inferiraju iz oštrina, distanci ili veličina: eksperimentalni program o shematskim atomima na kojima se zasnivaju muzički pojmovi

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Teorijski okvir

Neki lingvisti predlažu da leksičke jedinice dostupne u maternjem jeziku navode učesnike u eksperimentima da se radije opredele za odgovarajuće krosmodalne korespondencije. Tako, kada čuju nizanje tonova u pozadini, engleski učesnici trebalo bi da izaberu animaciju vertikalnog kretanja, dok bi govornici turskog preferirali oblike koji postaju deblji ili tanji. U prethodnim radovima (Antović, 2009; Antović, Bennett & Turner, 2013) doveli smo u pitanje takvu ‘tezu jakog jezičkog relativizma’. Naprotiv, na osnovu predloga u Jackendoff (2002) sugerišemo postojanje invarijante višeg reda, tj. sistema nezavisnog od kognitivnog modaliteta koji leži ispod, naizgled, sasvim različitih međujezičkih opcija kojima se opisuju muzički pojmovi. Nedavno smo zaključili da se 5 navodno veoma različitih animacija koje odgovaraju kretanju tonova u skalama (međujezički moguće, poput ‘kretanja naviše’, ‘smanjivanja’ ili ‘stanjivanja’, ali i naizgled nemoguće u prirodnim jezicima, poput ‘promene boje’ ili ‘rotacije’) bazira na jedinstvenoj podležnoj strukturi koja se sastoji od dva pojmovna atoma: DISKRETNOG KRETANJA i JEDNOSMERNE PUTANJE (Antović, Mitić & Benecasa, 2018).

Ciljevi

Ovo istraživanje ispituje istu hipotezu – da postoji jedinstvena podležna struktura koja motiviše naizgled međujezički različite muzičke pojmove – na primeru povišilica i snizilica u muzici. Predlaže se da dva pojmovna atoma, DISKRETNNO KRETANJE i JEDNOSMERNNA SKALARNA PROMENA, ponovo leže ‘ispod’ bar 5 naizgled različitih opcija za izgradnju muzičkog pojma.

Metod

Zvučni stimulus od 2.5 sekunde predstavlja izohronu sekvencu sinusnih talasa od 5 tonova (g-gis-g-ges-g) praćenu sa ukupno 24 animacije koje prikazuju kvadrat koji se pomera ili menja svoj oblik na način koji reflektuje leksičke mogućnosti iz 3 grupe jezika: kreće se naviše i naniže (srpski), postaje tanji i deblji (turski) i oštrij i tuplji (engleski). Uz to, data su i 2 skupa vizuelnih prezentacija koje se ne nalaze u prirodnim jezicima: kvadrat koji rotira u smeru kazaljke na satu i suprotnom od nje i koji menja boju (od čiste plave do čiste crvene i nazad). Svaki od 5 tipova prezentacija varira se na osnovu prisustva ili odsustva 2 postulirana pojmovna atoma: statičan kvadrat (oba atoma su isključena), kvadrat koji se glatko pomera u jednom, a zatim u drugom smeru (-DISKRETNNO KRETANJE+SKALARNA PROMENA), kvadrat koji se pomera u smeru kontraintuitivnom u odnosu na muzičku sekvencu (-DISKRETNNO KRETANJE+SKALARNA PROMENA, npr. u ‘srpskoj’ prezentaciji kvadrat najpre ide *naniže*, a zatim *naviše*), te kvadrat koji se pomera diskretno i u ‘pravom’ smeru (+DISKRETNNO KRETANJE+SKALARNA PROMENA). Srpski nemuzičari ocenjivali su usklađenost svake od randomizovano puštenih animacija sa muzičkim stimulusom na Likertovoj skali sa 10 vrednosti.

Rezultati

Srpski ispitanici (1) vertikalno kretanje, dostupno u srpskom jeziku, *ne ocenjuju* višim ocenama, (2) postupno povećavaju ocene sa dodavanjem podležnih atoma, te (3) daju relativno ujednačene

ocene za iste konfiguracije atoma kroz svih 5 tipova animacija. Distinkcija između uslova sa ‘dva konceptualna atoma’ i ‘jednim atomom, gde je uključena samo DISKRETNA DISTANCA’ ovde je manje jasna, što ukazuje na problem da se zaključi ‘tačan smer’ muzičkog kretanja, verovatno jer je korišćen najmanji tonalni pomak moguć u zapadnoj temperovanoj muzici.

Zaključci

Rezultati celog istraživačkog programa, pa tako i preliminarni rezultati ove studije, sugerišu da se konceptualizacija muzike bazira na apstraktnim pojmovnim atomima, a ne na leksikalizacijama naučenim iz maternjeg jezika ili na perceptivnim faktorima nižeg nivoa.

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- Jackendoff, R. (2002). *Foundations of language*. New York: Oxford University Press.

Ključne reči: muzika, konceptualizacija, konceptualni atomi, podležna struktura, krosmodalne korespondencije.

‘Paths’ are inferred from sharpnesses, distances, and sizes alike: An experimental program into schematic primitives underlying musical concepts

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Background

Some linguists propose that lexical items available in one’s native language motivate participants’ preferences for cross-modal correspondences in experiments. Thus, accompanying pitch sequencing, English participants should favor vertical movement, while Turkish speakers should prefer shapes becoming thicker or thinner. In previous work (Antović, 2009; Antović, Bennett & Turner, 2013), we have questioned such a ‘strong linguistic relativity thesis’. Rather, following Jackendoff (2002) our results suggest a higher-order, modality independent system beyond apparently disparate cross-linguistic options for musical concepts. Most recently we have found that five seemingly very different animated options corresponding to pitch movement in scales (available cross-linguistically, as in tones ‘moving upward’, ‘becoming smaller’ or ‘getting thinner’, but also apparently not salient across languages, such as ‘changing the hue from red to blue’ or ‘rotating’) were all based on a single underlying structure consisting of two conceptual primitives: DISCRETE MOVEMENT and UNIDIRECTIONAL PATH (Antović, Mitić & Benecasa, 2018).

Aims

The present ongoing research tests the same hypothesis – that there is a single underlying structure motivating apparently cross-linguistically different musical concepts – on the domain of musical accidentals. The proposal is that two conceptual primitives, DISCRETE MOVEMENT and UNIDIRECTIONAL SCALAR CHANGE, again lie beneath at least five different conceptualization options.

Method

The auditory stimulus is a 2.5 second isochronous five-tone sine wave sequence (G – G sharp – G – G flat – G), accompanied by a total of twenty four animations of squares moving or changing shape in ways reflecting lexical options across three groups of languages: going up or down (Serbian), becoming thinner or thicker (Turkish), and sharper and flatter (English). In addition, two sets of non-linguistic visual presentations are given: a square ‘rotating’ clockwise and counterclockwise and changing hue (from blue to red and back). Presentations are varied according to the presence or absence of two postulated conceptual primitives: a static square (both primitives are off), a square moving or transforming smoothly in one direction and then the other (-DISCRETENESS +SCALAR CHANGE), a square moving in directions counterintuitive to the musical change (+DISCRETENESS, -SCALAR CHANGE, e.g. in the ‘Serbian’ presentation the square first goes *down* and then *up*), and a square moving discretely in the ‘right’ directions (+DISCRETENESS +SCALAR CHANGE). Serbian nonmusicians judge the suitability of animations to the musical stimulus on a 9-point Likert scale.

Results

Results indicate (1) no preference for verticality, available in the Serbian language, by the Serbian population, (2) gradual increase in ratings with the primitives added in all presentation types, and (3) relatively even results for the same configurations of primitives across the five presentation types. The distinction between ‘two primitives’ and ‘one-primitive, +discrete distance’ is less clear as here, however, indicating more problems inferring the ‘correct direction’ of musical movement, likely due to the smallest pitch change in Western tempered music used in the present study.

Conclusions

Results of the entire research program, including the preliminary results of the ongoing study, suggest that the conceptualization of music is based on abstract conceptual primitives, rather than lexicalizations from the mother tongue or lower-level perceptual factors.

References

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Keywords: music, conceptualization, conceptual primitives, underlying structure, cross-modal correspondences.

Slušna percepcija bitonalitetnosti u usporedbi s analizom pomoću modela ljestvične disonance

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Teorijski okvir

Recepcija termina politonalitetnost pobudila je mnoge rasprave koje su rezultirale nesustavnom uporabom toga termina, neprikladnim analitičkim pristupima i nedostatkom jedinstvene, a prikladne definicije. Pojam politonalitetnosti, u svakom slučaju, implicira kombinaciju superpozicije slojeva zvuka koji se odlikuju unutarnjom tonalitetnom sustavnošću, a čija, pak, interpretacija ovisi o tome koji se teorijski okvir primjenjuje kako bi se objasnio odnos među tim slojevima. Martins (2017) je ponudio analitički aparat nazvan *ljestvična disonanca* (*scalar dissonance*) čiji je cilj uspostavljanje kontrapunktnih odnosa između slojeva politonalitetne fakture kroz međudjelovanje ljestvica koje su osnova impliciranih tonaliteta. Dvije su osnovne karakteristike modela ljestvične disonance: *neslaganje* (*mismatch*, kraće MISM: 'trenje' ili 'grubost' između slojeva, koje se mjeri brojem stupnjeva jednoga tonalitetnog sloja koji su u disonantnom odnosu sa stupnjevima u drugome sloju) i *propusnost* (*porosity*, kraće PORO; izražena brojem propusnih, odnosno pivotnih tonova između slojeva).

Ciljevi

Cilj je ove istraživačke studije ispitati odnos između percipirane razine bitonalitetnosti (kao najjednostavnijeg oblika politonalitetnosti) s analitičkim podacima dobivenim primjenom modela ljestvične disonance, za koje očekujemo da su u pozitivnoj korelaciji.

Metod

Uzorak se sastojao od 146 ispitanika, studenata glazbe na preddiplomskoj i diplomskoj razini. Statistički je model (sastavljen od varijabli poput dobi, spola, glavnog predmeta studija, trajanja glazbenog obrazovanja, godina studija, posljednje ocjene iz *solfeggia*, apsolutnog sluha i spretnosti ruku) testiran kroz usporedbu s rezultatima niza slušnih eksperimenata sastavljenih od 25 parova bitonalitetnih podražaja (primjeri skladani za ovu priliku, te odlomci odabranih djela Milhauda, Bartóka i Caselle), snimljenih na klaviru. Ispitanici su uspoređivali stupanj bitonalitetnosti unutar svakoga para. Rezultati slušnih eksperimenata uspoređeni su s analitičkim nalazima dobivenim primjenom modela ljestvične disonance. Opći rezultati komparativne analize interpretirani su u svjetlu osnovnih načela analize zvukovnoga okruženja (Bregman, 1990; Huron, 2016).

Rezultati

Statistički model koji opisuje linearan odnos između postignuća na slušnim testovima i općih varijabli pokazao se vrlo značajnim ($p = 1.767 \times 10^{-7}$). Optimalan model ($p = 1.444 \times 10^{-8}$) sastoji se od sljedećih varijabli (unutar odabrane razine značajnosti $\alpha = 0.1$): glavni predmet studija ($p = 2.051 \times 10^{-5}$), spretnost ruku ($p = 0.0002529$), posljednja ocjena ostvarena iz *solfeggia* ($p = 0.002319$), spol ($p = 0.0606$) i dob ($p = 0.02195$). Apsolutni sluh, trajanje glazbenog obrazovanja i godina studija nisu se pokazali statistički značajnim varijablama.

Zaključci

Najveći broj odgovora potvrdio je očekivanja, tj. u pozitivnoj je korelaciji s predloženim analitičkim modelom ljestvične disonance. Statistika je pokazala da se među značajnim prediktorima očekivanih odgovora (tj. onih koji se poklapaju s analitičkim nalazima dobivenim primjenom modela ljestvične disonance) nalaze kognitivni kriteriji (poput glavnog predmeta studija ili posljednje ocjene ostvarene iz *solfeggia*), kao i spretnost ruku, spol i dob.

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Ključne riječi: bitonalitet, ljestvična disonanca, slušna percepcija, segregacija zvuka, analiza zvukovnoga okruženja.

Aural perception of bitonality compared with an analysis using the scalar dissonance model

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Background

The reception of the term *polytonality* gave rise to a contested debate, resulting in inconsistent uses of the term, incompatible analytical approaches, and a lack of an appropriate definition. Nevertheless, the notion of polytonality implies a combination or superimposition of tonally resonant layers, whose interpretation depends on the conceptual framework used to explain their relationship. Martins (2017) proposed an analytical apparatus named *the scalar dissonance* aimed at modeling contrapuntal relations between distinct layers of polytonal texture as interactions between scales. The two essential properties of the scalar dissonance model are mismatch (abbr. MISM: ‘friction’ or ‘roughness’ between layers, measured by the number of notes intersecting conflicting steps in another layer, divided by the number of layers conceived) and porosity (abbr. PORO: “channeling” or “pivot” notes between the layers, measured by their number).

Aims

The principal goal of this exploratory study is to examine the relationship between the perceived degree of bitonality (as the simplest kind of polytonality) with analytical data (MISM and PORO) obtained using the scalar dissonance model, which are expected to show a positive correlation.

Method

The study was conducted among 146 participants, students of music at BA and MA levels. The statistical model (composed of variables such as age, sex, major subject, duration of music education, year of study, the most recent grade achieved in Aural Training courses, handedness and the possession of absolute pitch) was tested against the results of a series of listening experiments

consisting of 25 pairs of bitonal stimuli (composed samples and excerpts of selected pieces by Milhaud, Bartók and Casella) recorded on the piano. The participants compared the perceived degree of bitonality for each pair. The results of the listening experiments were also compared against the findings of an analysis conducted using the scalar dissonance model. The overall results of the comparative analysis were interpreted in light of the basic principles of aural perception (Bregman, 1990; Huron, 2016).

Results

The statistical model describing the linear relationship between the performance in listening exercises and the general variables shows high significance ($p = 1.767 \times 10^{-7}$). The optimal model ($p = 1.444 \times 10^{-8}$) consisted of the following variables within a given significance level ($\alpha = 0.1$): major subject ($p = 2.051 \times 10^{-5}$), handedness ($p = 0.0002529$), the most recent grade achieved in Aural Training ($p = 0.002319$), sex ($p = 0.0606$) and age ($p = 0.02195$). The possession of absolute pitch, duration of music education and year of study do not show significance.

Conclusions

Most answers have confirmed our expectations, i.e. they correlate positively with the scalar dissonance model. The significant predictors of the expected answers (i.e. those that match analytical data obtained using the scalar dissonance model) included criteria of cognitive nature (e.g. major subject or the most recent grade achieved in Aural Training), as well as handedness, sex and age.

References

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Keywords: bitonality, scalar dissonance, aural perception, stream segregation, auditory scene analysis.

Opazanja ritmičkih obrazaca, metra i vrste takta kod studenata muzike

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Teorijske osnove

S obzirom na to da se muzika odvija u vremenu, jedna od ključnih funkcija ritma je da uvede organizacione vremenske obrasce među tonovima koji se nižu. Ritam predstavlja dinamičku snagu koja omogućava i olakšava komunikaciju sa muzikom iz koje nastaje kognitivno, emocionalno i estetsko iskustvo. Neki autori čak smatraju da je ritam važniji za muzičku kogniciju – opažanje, učenje, pamćenje i razumevanje muzike – od informacija o visini tonova (Radoš, 2010). Metar i ritam predstavljaju načine kognitivne organizacije koji uključuju razlikovanje doba na naglašene i nenaglašene (Mejer, 1986). U tumačenju rezultata oslanjamo se na teorijske postavke autora koji smatraju da je metričko i ritmičko grupisanje hijerarhijski organizovano (Lerdahl and Jackendoff, 1977).

Ciljevi

Ovim istraživanjem se želi: 1) utvrditi tačnost opažanja metra i ritmičkih obrazaca u okviru zadataka različitog trajanja (2, 4, 6, 8 taktova); 2) ustanoviti da li je preciznost prepoznavanja metra i ritmičkih obrazaca povezana ili ne sa dužinom trajanja obrasca, kako bi se posredno saznalo o obimu i kapacitetima radne muzičke memorije u okviru zadataka opažanja; 3) uvideti da li su prethodno stečeno znanje i iskustvo u korelaciji sa opažanjem ritmičkih obrazaca.

Metod

Uzorak čini 89 studenata Fakulteta muzičke umetnosti u Beogradu, sa naučnih i izvođačkih odseka. Oni su popunjavali upitnik koji se sastoji iz tri dela. Prvi deo obuhvata 4 pitanja o opštim podacima ispitanika, drugi deo 4 pitanja otvorenog i zatvorenog tipa o samoproceni i dosadašnjem muzičkom znanju i iskustvu, a treći deo 12 slušnih primera preuzetih iz klavirske literature, koji pripadaju različitim istorijskim i stilskim epohama (barok, klasicizam, romantizam, folklorni ekspresionizam). Slušni primeri su podeljeni u četiri grupe, koje se međusobno razlikuju po dužini zadate celine (2, 4, 6 i 8 taktova) i vrsti metra i takta (2/4 ili 4/4, 3/4 [3/8], 6/8). Procedura ispitivanja je takva da se svaki slušni primer pušta po tri puta, na osnovu čega ispitanici imaju zadatak da odrede metar, vrstu takta i zapišu ritmičke obrasce na zadatim linijama.

Rezultati

Ovo istraživanje je pokazalo da kada se broj taktova u zadatim obrascima progresivno povećava, tačnost opažanja metra i takta je veća. Opažanje ritmičkih jedinica je znatno veće u dvotaktnim celinama ($M = 1.32$, $SD = 1$) i u osmotaktnim celinama ($M = 1.08$, $SD = 1$), dok je značajno manje na nivou četvortaktnih ($M = -9.23$, $SD = 1$) i šestotaktnih ($M = -3.47$, $SD = 1$) celina. Najveći broj ispitanika (81.6%) je odgovorilo da je prilikom opažanja ritmičkih obrazaca pratilo ritam i melodiju zajedno, dok je značajno manji broj odgovorilo da je pratilo samo ritam (11.5%) ili delimično i ritam i melodiju (6.9%).

* ESCOM nagrada za istraživača na početku karijere – Pohvala.

Zaključci

Dobijeni rezultati ukazuju da je opažanje metra, vrste takta i ritmičkih obrazaca kod studenata muzike značajno veće na nivou dužih celina (8 taktova). Ovaj nalaz govori o tome da se odluka o proceni takta i metra donosi na osnovu uočavanja odnosa u većim celinama. Bolji rezultat na većim sklopovima sugerise da je muzička memorija bolja na nivou tih dužih celina, što je suprotno početnim očekivanjima. Prilikom opažanja i beleženja ritma, većina ispitanika se oslanja i na melodijsku komponentu.

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 Lerdahl, Fred and Ray Jackendoff. (1977). Toward a Formal Theory of Tonal Music. *Journal of Music Theory*, 21, 111-171.

Ključne reči: opažanje, ritmički obrasci, metar i vrsta takta, muzička memorija.

Perception of rhythmic patterns, meter and measure among music students

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Background

One of the key functions of the rhythm, since music is the art in time, is to introduce organizational timing patterns among the tones. Rhythm represents a dynamic force that enables and facilitates communication with music from which a cognitive, emotional and aesthetic experience arises. Some authors even consider the rhythm as more important for musical cognition – perception, learning, remembering and understanding of music – from information about tone pitch (Radoš, 2010). Meter and rhythm are methods of cognitive organization that include the distinction of the beat to stressed and unstressed (Meyer, 1986). In interpreting the results we rely on theoretical settings of authors who believe that metric and rhythmic grouping are hierarchically organized (Lerdahl and Jackendoff, 1977).

Aims

This research aims to: 1. determine the accuracy of meter and rhythmic patterns perception in tasks of different duration (2, 4, 6 and 8 measures); 2. confirm whether the accuracy of meter and rhythmic pattern recognition is or not related to the duration of the pattern, in order to learn indirectly about the extent and capacities of working music memory within the perception tasks; 3. see if the previously acquired knowledge and experience correlate with the perception of rhythmic patterns.

Method

The sample consists of 89 students from the Faculty of Music, from the scientific and performing departments. They completed a questionnaire consisting of three parts. The first part cov-

* ESCOM Early Career Researcher Award – Honorary mention.

ers 4 questions about the general information about the respondents, the second part of the 4 questions of an open and closed type on the self-assessment questions and previous musical knowledge and experience, and the third part of the 12 sound examples taken from piano literature, which belong to different historical and stylistic epochs (Baroque, Classicism, Romanticism, Folklore Expressionism). The sound examples are divided into four groups, which differ in their length given units (2, 4, 6 and 8 measures) and the meter and the measure (2/4 or 4/4, 3/4 (3/8), 6/8). The test procedure is such that each sound example is released three times, on the basis of which the respondents had the task of determining the meter and measure and writing down rhythmic patterns on the given lines.

Results

This research showed that when the number of measures in the given patterns progressively increases, the accuracy of the meter and the measure perception is higher. Observation of rhythmic patterns is considerably higher in the units of two ($M = 1.32$, $SD = 1$) and eight ($M = 1.08$, $SD = 1$) measures, while significantly less at the level of four ($M = -9.23$, $SD = 1$) and six ($M = -3.47$, $SD = 1$) measures. The majority of respondents (81.6%) answered that during the observation of rhythmic patterns they followed the rhythm and melody together while the significantly smaller number answered that it followed only the rhythm (11.5%) or partly rhythm and melody (6.9 %).

Conclusions

The obtained results indicate that perception of meter, measure and rhythmic patterns among music students is significantly higher at the level of longer units (8 measures). This finding suggests that the decision on the assessment of the measure and meter is based on the perception of relations in larger units. A better result on larger units further suggests that music memory is better at the level of these longer units, which is in contrary to the initial expectations. During the observation and writing of rhythmical patterns, the majority of respondents rely on the melodic component.

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Keywords: perception, rhythmic patterns, meter and type of measure, musical memory.

Percepcija makroforme u drugoj skladbi iz ciklusa *Tri skladbe za klavir* (1947) Miliona Babbitta*

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Teorijske osnove

Makroforma u drugoj skladbi iz ciklusa *Tri skladbe za klavir* (1947.) Miliona Babbitta definirana je dvanaesttonskim nizom i njegovim transformacijama. Budući da se radi o vrlo kompleksnoj organizaciji materijala, teško je slušno prepoznati transformacije niza. Također, u kontekstu skladbe nije jednostavno utvrditi granicu između izlaganja dva sukcesivna niza, prema tome ni granice dijelova forme. Iz tog je razloga ova analiza usmjerena na slušno prepoznatljive površinske detalje skladbe u izvedbi Roberta Tauba. Nalazi su utemeljeni u glazbenopsihološkim teorijama percepcije (Bregman, 1990; Deliège, 2001; Huron, 2001). Analiza polazi od konkretne izvedbe i pokušava pronaći uzroke perceptivnih posljedica u izvođačevim postupcima i pristupu skladbi. Pri tome se ne odbacuje mogućnost drugačije analize u drugim izvedbama.

Ciljevi

Cilj je ustanoviti povezanost slušno prepoznatljivih detalja i makroforme, odnosno otkriti kako izvođač pristupa podjeli forme i na koji je način ocrtava. Također, cilj je ustanoviti percipira li se ova skladba iz trenutka u trenutak (Leech-Wilkinson, 2012) ili makroforma ima utjecaj na percepciju (Addressi, 2010).

Glavni doprinos

Analiza je pokazala da je prema teoriji šlagvorta [*theory of cues*] (Deliège, 2001) najuočljiviji interval kvinte s početka skladbe koji se ponavljanjem 'utiskuje' u pamćenje. Načela blizine u vremenu i tonskom prostoru (Bregman, 1990) odgovorna su za stvaranje triju struja od kojih su u srednjoj često smješteni melodijski fragmenti na kojima izvođač inzistira. Njihovu percepciju moglo bi opravdati načelo tonskosti [*toneness*] prema kojemu je percepcija visine tona najjasnija u srednjem registru (Huron, 2001). U visokom i niskom registru teže je pratiti melodijska kretanja, pa strujanja u tim registrima više zvuče kao pratnja srednjoj struji. Usporedba slušne analize i makroforme sugerira da se najuočljiviji detalji nalaze upravo na mjestima podjele forme.

Implikacije

Preklapanje formalne i slušne analize moglo bi sugerirati skladateljevu namjeru označavanja podjele forme detaljima s površine skladbe. Tome pridonosi i Taubova interpretacija. Ova analiza u skladu je s pristupom posttonalitetnoj glazbi koji smješta ukupni zvuk u središte analitičke pozornosti (Utz, 2013), s time da se naglašava mogućnost drugačije analize i percepcije drugih detalja u drugim izvedbama.

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* Ova je analiza dijelom rezultat diplomskog rada obranjenog na Muzičkoj akademiji u Zagrebu 2018. godine.

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Ključne reči: serijalna glazba, teorija šlagvorta, percepcija makroforme, načela integracije.

Perception of the macroform in the second of Babbitt's *Three Compositions for Piano (1947)**

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Background

The macroform in the second of Milton Babbitt's *Three Compositions for Piano (1947)* is defined by the twelve-tone set and its transformations. It is difficult to recognize these transformations aurally since the organization of the material is quite complex. Moreover, in the context of the piece, it is challenging to determine the boundary between statements of two successive sets and, consequently, the boundaries between form sections. Therefore, this analysis focuses on aurally detectable surface details in Robert Taub's performance. Findings are based on music psychology perception theories (Bregman, 1990; Deliège, 2001; Huron, 2001). The analysis initiates from performance and aims to find the causes of perceptual consequences in the performer's actions and procedures. Nevertheless, the possibility of different analysis in different performances is not excluded.

Aims

The aim is to establish a connection between recognizable surface details and macroform, and to discover how performer approaches a form division and whether he signifies it. Furthermore, the aim is to determine if this music is perceived from moment to moment (Leech-Wilkinson, 2012) or macroform affects the perception (Addressi, 2010).

Main Contribution

The analysis demonstrated that, according to the theory of cues (Deliège, 2001), the most memorable interval is the ascending fifth from the beginning of the piece, 'imprinted' in memory as a consequence of repetition. Proximity in time and frequency proximity (Bregman, 1990) are the principles responsible for generating three streams, the middle one of which often includes melodic fragments signified by the performer. Their perception could be justified by the toneness principle, according to which the pitch perception is at its highest in the middle of the auditory area (Huron, 2001). It is more difficult to follow melodic progressions in the higher and lower

* This analysis is a partial result of a master's thesis at the University of Zagreb, Music Academy, defended in 2018.

register, so these streams sound more like an accompaniment to the middle one. A comparison of auditive analysis and macroform reveals that memorable details are located exactly on boundaries of form sections.

Implications

The overlapping of structural and auditive analyses could suggest the composer's intention of marking form division with surface details. Taub's performance contributes to this observation. The analysis is in line with the approach to post-tonal music which places overall sound in the center of analytical attention (Utz, 2013), with the emphasis on the possibility of different analyses and perception of different details in other performances.

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Keywords: serial music, the theory of cues, perception of macroform, integration principles.

Tematska sesija 12
MUZIKA I ZNAČENJE

Thematic Session 12
MUSIC AND MEANING

Razumevanje u lancu komunikacije: kompozitor, pijanista, publika

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Teorijske osnove

Kvalitativno empirijsko istraživanje sprovedeno je s namerom da se odgovori na pitanje: da li se i kako razlikuju doživljaj i muzička interpretacija, razumevanje muzičkog dela izvođača i slušalaca u delima za klavir tri kompozitora različite kompozitorske poetike? Autorka želi da ispita u kojoj meri je lanac komunikacije ostvariv i u kojoj meri su namere kompozitora, a zatim i izvođača uspešne u 'prenošenju' osnovnih poruka kompozicija publici. Komunikacija, emocija i značenja u trijadi kompozitor – izvođač – publika i objašnjenje procesa koji se odvija tokom (re)produkcije i apercipije, kao i ispitivanja u kontekstu realnog izvođenja nisu česta (Bogunović, Popović & Perković, 2014; Juslin & Sloboda, 2010).

Ciljevi

Istraživanje ima za cilj da utvrdi stepen slaganja između namera kompozitora, izvođača i reakcije publike (muzičari i nemuzičari) u tri klavirske kompozicije, implicitnog ili eksplicitnog vanmuzičkog sadržaja. Razmatraju se emocionalni doživljaji, asocijacije, narativ i poruka dela.

Metod

Uzorak čini 20 ispitanika – muzičari, ne-pijanisti (10) i nemuzičari (10); 8 muškaraca i 12 žena, godine starosti od 22 do 74. Uпитnik sadrži 24 pitanja otvorenog tipa strukturisana u četiri odseka – opšte informacije i tri bloka pitanja koja se odnose na emocionalni doživljaj, asocijacije, narativ i 'poruku' tri dela (ista pitanja za izvođača i publiku). Zvučni materijal čine delovi Prokofjevljeve *Sonate br. 8* (trajanje 10:15 minuta), *Odbljesci na vodi* Debisija (5:00) i *Žar ptica* Stravinskog (7:30). Izvođenje autorke snimljeno je u audio formatu. Ispitanici su posle slušanja svakog segmenta odgovarali na pitanja. Obrada dobijenih podataka izvršena je kvalitativnom analizom sadržaja dobijenih odgovora. Odgovori ispitanika su kategorisani i beležene su frekvencije odgovora po kategorijama.

Rezultati

Ovde će biti prezentovani samo rezultati koji se tiču izvođenja Sonate Prokofjeva, jer se odgovori čine najzanimljivijima. Ustanovljeno je da je publika u relativno visokom stepenu detektovala nameravani emocionalni tok slušanog segmenta (60% potpunog ili delimičnog poklapanja); u 65% poklapanja između kompozitora/izvođača i publike u asocijacijama na delo (čak je 5% ispitanika dalo identičan 'naslov!'); ispričana 'priča' je veoma slična u 20%, a u 45% slučajeva je drugačija, ali odgovara muzičkom toku. Zanimljiva je i činjenica da ovo delo nema programski naslov, niti eksplicitni vanmuzički sadržaj, a ipak rezultati ukazuju na visok stepen saglasnosti između namera kompozitora i odgovora slušalaca.

Zaključci

Rezultati pokazuju da određene razlike u apercipiji među delima postoje, ali da se komunikacija na globalnom nivou u lancu kompozitor – izvođač – slušalac zaista može uspešno odvijati (stepen slaganja oko 60 – 80%). Usklađenost sa kompozitorovim i/ili interpretatorovim idejama jesu značajna, iako recipijenti muziku koju čuju povezuju i sa ličnim 'pričama', ali uz izuzetno dobro detektovanje emocionalnog toka dela. Komunikacija na nivou emocija i narativa pokazuje

najveći nivo slaganja. Vanmuzički sadržaj doprinosi boljem i jasnijem izvođenju, samim tim i apercipiji od strane publike. Međutim i određene kombinacije harmonije i dinamike izazivaju slične ili iste emocije kod slušalaca.

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Ključne reči: kompozitor, izvođač, komunikacija, publika, apercipija muzičkog dela, emocija.

Understanding in communication chain: Composer, piano performer, audience

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Background

The qualitative empirical research was carried out with the intention to answer a question: whether and how different is the experience and understanding of the same musical piece by the performer and listeners in three piano compositions with unique and various poetics? The author wants to examine to what extent communication is achievable and to what extent the intentions of the composer and the performer are successful in 'transmitting' the basic message of the music piece in question, to the listeners. Communication of emotions and meanings in a composer-performer-audience triad, also explanations of a process which unfolds during (re)production and apperception, as well as research in a context of real performance, are rare (Bogunović, Popović & Perković, 2014; Juslin & Sloboda, 2010).

Aims

The research has an aim to determine the level of correspondence between intentions of composer, performer and listeners' response (musicians and non-musicians) in three piano compositions, with implicit or explicit extra-musical content. Emotional experience, associations, narrative and 'message' of the pieces were taken into account.

Method

The sample consisted of 20 participants – musicians other than pianists (10) and non-musicians (10); 8 men and 12 women, aged 22 to 74. The questionnaire contained 24 questions structured in four parts – general information and three groups of questions referring to emotional experience, associations, narrative and 'message' of three compositions. Sound material was represented by the parts of Prokofiev's *Sonata No. 8* (duration 10:15), *Reflections on the water* by Debussy (duration 5:00) and Stravinsky's *Fire Bird* (7:30). The performance was recorded in audio format. The participants were answering the questions after listening to each segment. The data analysis was

done by qualitative content analysis. Respondents' answers were categorized, and the frequencies of responses were noted by category.

Results

Here, only the results related to the performance of Prokofiev's Sonata will be presented. It was confirmed that listeners detected the relatively high degree of intended emotional flow in the recorded segment (60% of complete or partial correspondence); there are 65% matchings in associations between composer/performer and listeners (as much as 5% of respondents gave an identical 'title' to the piece and it was not familiar to them!); the narrative was very similar in 20% of 'stories' and in 45% of the cases it was different, but correspondent to the music idea. The fact that is quite interesting is, that this musical piece does not have a program title or explicit non-musical content, but the results pointed out to a high consent between intentions of composer and listeners' response.

Conclusions

The results show that there are certain differences in the apperception between the musical pieces, but also that the communication on the chain composer – performer – listener, can indeed be successfully performed (the degree of compatibility around 60-80%). Matches with composers and/or performer's ideas are significantly present, although recipients associate the music they listen with personal 'stories', but with exceptionally good detection of the emotional flow of music. Communication at the level of emotions and narratives shows the highest level of compatibility. Non-musical content contributes to performance interpretation, and therefore the audience apperception. However, certain combinations of harmonies and dynamics induce similar or the same emotions among listeners.

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Keywords: composer, performer, communication, audience, apperception of music piece, emotion.

Segmentacija muzičkog toka i emocionalni odgovor studenata muzike tokom slušanja impresionističkog muzičkog komada

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Teorijske osnove

Segmentacija i određenje tipova granica muzičkog toka dva su međuzavisna analitička koraka, značajna za razumevanje i tumačenje njegove procesualnosti. Muzički tok je jedinica najvišeg ranga muzičkog jezika, koji kao jedinstvo ostaje u svesti zahvaljujući pamćenju. U okviru njega, muzička rečenica/fraza ispoljava se kao jedinica muzičkog mišljenja, čija smisaonost predstavlja ukupnost svih psihičkih činilaca koji nastaju u našoj svesti zahvaljujući zvučnim odnosima (Popović, 1988). Stubovi muzičke strukture i strukturalna organizacija imaju izuzetno značajnu ulogu u povezivanju muzičke ekspresivnosti sa ljudskim izrazom, pokretom u muzici koji je u vezi sa ljudskim emocijama (Lerdahl & Jackendoff, 1983; Popović Mladenović, Bogunović, & Perković, 2014).

Ciljevi

Ciljevi istraživanja su: a) ustanoviti sposobnost studenata za segmentaciju muzičkog toka na nivou muzičke rečenice; b) utvrditi na osnovu čega studenti donose odluke u procesu segmentiranja; c) saznati o emocionalnom odgovoru studenata muzike tokom slušanja komada; c) ustanoviti vezu između prosečne ocene iz predmeta Analiza muzičkih oblika/Analiza muzičkog dela sa načinom na koji su studenti sprovodili segmentaciju.

Metod

Eksplorativno istraživanje je sprovedeno na Fakultetu muzičke umetnosti u Beogradu. Uzorak je činilo 87 ispitanika, koji pohađaju naučne (52.8%) i instrumentalne odseke (47.2%). Merni instrumenti su bili upitnik (6 opštih pitanja, 3 segmentacija, 1 pitanje za emocionalni odgovor) i muzički zadatak (Debussy *Arabesque* 1, 5.07 minutes). Procedura je bila sledeća: ispitanici su slušali muzički zadatak dva puta i uporedo posmatrali partituru bez oznake za vrstu takta, tempo, dinamiku i bez taktica. Nakon prvog slušanja trebalo je da procene intenzitet 12 emocija, prema cirkumpleks modelu (Hunter & Schellenberg, 2010) na skali od 1-5. Nakon drugog slušanja, ispitanici imaju zadatak da sprovedu segmentaciju muzičkog toka i da označe kriterijume na osnovu kojih su doneli odluku: partitura, intuicija, artikulacija, poznavanje komada, izvođenja (skale 1-5).

Rezultati

Rezultati pokazuju da su ispitanici opazili između 3-22 segmenta, a ekspertska procena je bila 10. Segmentiranje se sprovodilo na nivou motiva (26.4%), na rečeničnom nivou (70.1%) i na makronivou – nivo perioda, nivo odseka (3.4%). Studenti odluku o segmentiranju donose najčešće na osnovu intuicije ($M = 4.10$, $SD = 1.14$). Bezbriznost ($M = 4.08$, $SD = 1.10$), Zadovoljstvo ($M = 4.23$, $SD = 0.83$) i Opuštenost ($M = 4.31$, $SD = 0.91$) su emocije koje su studenti označavali. Prosečna ocena studenata koji pohađaju naučne odseke značajno korelira sa segmentacijom na osnovu poznavanja muzičkog komada ($r = .332$, $p = .032$), dok je prosečna ocena studenata koji pohađaju instrumentalne odseke povezana sa segmentacijom na osnovu partiture ($r = .378$, $p = .018$).

Zaključci

Rezultati pokazuju da je segmentaciju najčešće sprovedena na rečeničnom nivou, što je očekivano. Većina studenata segmentirala je intuitivno, a nešto u manjoj meri na osnovu znanja, što je suprotno početnim očekivanjima. Bezbriznost, Zadovoljstvo i Opuštenost su emocije koje su studenti najčešće iskusili tokom slušanja. Nema povezanosti između emocionalnog odgovora i segmentacije. Instrumentalisti su češće donosili odluke o segmentaciji na osnovu partiture, što ukazuje na delovanje iskustva kao faktora facilitacije u uočavanju 'obrazaca' (*chunks*) i segmentiranju. Praksa muzičkog izvođenja je značajniji faktor nego učenje teorijskih koncepata, jer nemaju primenu u novim zadacima. Obrazovanje nema rezultat koji bi se očekivao.

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Ključne reči: segmentacija, muzički tok, muzička rečenica, kognicija, emocije.

Musical flow segmentation and music students' emotional response during listening of the impressionistic musical piece

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Background

The segmentation and determining the types of boundaries of musical flow are two interdependent analytical steps, important for understanding and interpreting its processability. Musical flow is the unit of a musical language, its highest-ranking unit, and it as a unity stays in the mind due to memory. Within it, the musical sentence/phrase is expressed as a unit of musical thinking, whose signification represents the totality of all psychic factors that arise in our consciousness thanks to the sound relations (Popović, 1988). The pillars of musical structure and structural organization have an extremely important role in the production of musical expressiveness connected to human expression, musical motion related to human emotion (Lerdahl & Jackendoff, 1983; Popović Mladenović, Bogunović & Perković, 2014).

Aims

The aims of the research are: a) to establish the students' ability to segment the piece at the level of the musical sentence; b) to determine the basis on which they make decisions in the segmentation; c) to find out about emotional response during listening to the piece; d) to establish a link between the average mark (courses Analysis of Musical Forms/Analysis of Musical Piece) with the way they conducted the segmentation.

Method

Exploratory research was conducted at the Faculty of Music in Belgrade. The sample consisted of 87 participants: 52.8% from scientific departments, 47.2% from instrumental departments. Measurement instruments were questionnaire (6 general data, 3 segmentation, 1 question for emotional response) and musical task (Debussy *Arabesque* 1, 5.07 minutes). The procedure was as follows: respondents listened to the musical task two times and simultaneously watched the score from which, signs for meter, tempo, bar lines and dynamic were removed. After the first listening, they had to estimate the intensity of 12 emotions, according to the circumplex model (Hunter & Schellenberg, 2010), on 1-5 point scales. After second listening, they had to conduct segmentation of the musical flow and to specify the criteria upon which they made decision: score, intuition, articulation, knowledge, piece performance (scales of 1-5).

Results

The results showed that the respondents observed between 3 and 22 segments and expert assessment was 10. Segmentation was carried out at motive (26.4%), on sentence (70.1%) and macro level (3.4%). Students made decisions on the segmentation mostly on intuition ($M = 4.10$, $SD = 1.14$). The Carefreeness ($M = 4.08$, $SD = 1.10$), Pleasure ($M = 4.23$, $SD = 0.83$) and Relaxation ($M = 4.31$, $SD = 0.91$) were the emotions which students selected mostly, when listening to a musical piece. The average mark of students from scientific departments correlated significantly only with segmentation based on the familiarity of the musical piece ($r = .332$, $p = .032$), while the average mark of instrumentalists was in correlation with segmentation based on the score ($r = .378$, $p = .018$).

Conclusions

The results show that segmentation was carried out mostly at the sentence level, which is expected. Majority of students segmented intuitively and somewhat to a lesser extent based on knowledge, which is contrary to initial expectations. Carefreeness, Pleasure and Relaxations were emotions that students experienced during listening to a musical piece. There is no correlation between emotional response and segmentation. Instrumentalists more often made segmentation decisions based on the score which can be understood as a result of experience as a facilitation factor in perceiving 'patterns' (chunks) and segmentation. The practice of musical performance is more important than the learning of theoretical concepts, which seems not to have transferable value for new tasks.

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Keywords: segmentation, musical flow, musical sentence, cognition, emotions.

Muzička ekspertiza i kompleksnost stimulusa kao faktori estetske preferencije muzike

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Teorijske osnove

Savremena istraživanja estetskog doživljaja muzike ukazuju na razlike između muzičkih eksperata i ne-eksperta. Među značajnijim razlikama je koncipiranje estetskog doživljaja muzičkih stimulusa: dok je za laike najrelevantniji emocionalni efekat, za eksperte je relevantniji kognitivni domen (Istók et al., 2009). Stoga se pretpostavlja da su razlike u estetskom doživljaju posledica razlike u percepciji i kognitivnoj obradi muzičkih stimulusa (Pearce, 2014). Shodno tome, između eksperata i ne-eksperta postoji razlika u optimalnom stepenu kompleksnosti muzičkih stimulusa koja dovodi do najveće preferencije: iako je trend povezanosti kompleksnosti i preferencije isti za eksperte i laike, eksperti preferiraju kompleksnije stimuluse (Berlyne, 1974 prema Pearce, 2014). U prilog tezi o kompleksnosti idu i nalazi koji ukazuju na to da disonantni akordski sklopovi indukuju veću tenziju ekspertima nego laicima (Bigand et al., 1996), kao i o diferencijaciji neuralnog odgovora na muzičke stimuluse na višim nivoima obrade, što vodi zaključku da je uzrok razlike verovatno kognitivna obrada (Fujioka et al., 2014).

Ciljevi

Pošto je dostupna empirijska građa o razlikama u estetskoj preferenciji muzike između eksperata i ne-eksperta uglavnom zasnovana na ispitivanju preferencije pojedinačnih akordskih sklopova i/ili veoma kratkih muzičkih sekvenci, naš cilj je bio da ispitamo da li se ova razlika održava i kada su u pitanju duži sklopovi sekvenci (rečenice ili periodi) iz postojećih kompozicija. Pretpostavili smo da će razlika biti veća kada su u pitanju kompleksniji stimulusi.

Metod

Stimulusi su činili odlomci iz 18 kompozicija po tri kompozitora iz perioda ranog i poznog romantizma. Epoha je predstavljala operacionalizaciju kompleksnosti (raniji radovi su manje kompleksni). Iz opusa svakog od kompozitora odabrane su po tri kompozicije. Svaki odlomak je trajao 15-30 sekundi. Radi umanjenja efekta poznatosti, nisu korišćeni najpoznatiji radovi ovih kompozitora, a svaki odlomak uzet je iz sredine kompozicije. Stimulusi su izloženi nasumičnim redosledom. Estetska preferencija merena je odgovorom na pitanje *Koliko Vam se sviđa ovaj odlomak* na 7-stepenoj skali semantičkog diferencijala. Istom skalom izmereni su prijetnost, upečatljivost i poznatost, radi eksploracije efekata ovih varijabli. Muzička ekspertiza izmerena je godinama formalnog muzičkog obrazovanja (ne-eksperti ≤ 8 godina).

Rezultati

U trenutku pisanja apstrakta, prikupljanje podataka je u toku. Podaci će biti analizirani 2-faktorskom mešovitom analizom varijanse (ekspertiza*kompleksnost).

Zaključci

S obzirom na to da prikupljanje podataka i dalje traje, na osnovu postojećih odgovora ispitanika se ne mogu izvesti valjani zaključci. Potvrda hipoteze o interakciji ekspertize i komplek-

snosti značila bi mogućnost generalizacije ranijih nalaza na muzičke forme duže od sekvence. Opovrgavanje ove hipoteze, međutim, ne bi nužno značilo opovrgavanje prethodnih nalaza, s obzirom na to da je moguće da razlika u kompleksnosti između ranog i poznog romantizma nije dovoljno velika da bi dala efekat na preferenciju.

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Ključne reči: estetska preferencija, muzička ekspertiza, kompleksnost muzičkih stimulusa.

Music expertise and stimuli complexity as factors of aesthetic preference of music

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Background

Contemporary research of aesthetic preference of music implies that there are differences between music experts and laypersons. The conception of the aesthetic experience of music stimuli is among the most important differences between the two groups: while the emotional effect is the most relevant for the laypersons, the cognitive domain is the most relevant for the experts (Istók et al., 2009). The difference in perception and cognitive processing of music stimuli between music experts and laypersons is therefore usually the starting point for researchers: the difference in processing, affected by music expertise, leads to the differences in aesthetic response (Pearce, 2014). Accordingly, empirical evidence implies that music experts differ from the laypersons in an optimal degree of stimuli complexity that leads to the highest preference: although the complexity-preference correlation trend is similar in two groups, music experts prefer more complex stimuli in general (Berlyne, 1974 as cited in Pearce, 2014)). Findings that experts react better to dissonant accords than the laypersons support the complexity hypothesis (Bigand et al., 1996). Additionally, music experts differ from the laypersons in neural response to music stimuli in the late levels of information processing, which leads to the conclusion that the difference is rather affected by cognitive processing than by mere perception of the stimuli (Fujioka et al., 2014).

Aims

The existing empirical evidence about the differences in aesthetic preference of music between the experts and laypersons is mostly based on very short stimuli. Therefore, our goal was to examine if this difference exists when longer music stimuli are used. We hypothesized that the difference between groups would be higher for more complex stimuli.

Method

We used samples from 18 compositions from six composers (three from early romanticism, three from late romanticism). Complexity was operationalized by the period (earlier works are less complex). We chose three composition written by each of the composers. Each sample was 15-30 seconds long. To reduce the mere effect of familiarity, we used fewer known works by the composers. Each sample was taken from the middle of the composition. Stimuli were presented in random order. Aesthetic preference was operationalized by a question *How much do you like this sample*. Participants answered on a 7-point semantic differential scale. On the same scale, we measured pleasantness, impressiveness, and familiarity, to explore their effects. Music expertise was measured by years of formal musical education (as laypersons we considered those with ≤ 8 years of education).

Results

At the moment of writing the abstract, data collection was still going on. The data will be analysed by 2-way mixed ANOVA (expertise*complexity).

Conclusions

Since the data collection is not over, we cannot still have valid conclusions. Confirmation of the expertise*complexity interaction would allow us to generalize previous findings on longer music forms. On the other hand, refutation of this hypothesis would not necessarily mean that the previous findings are not valid since the two epochs might not differ in complexity enough to affect preference.

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Keywords: aesthetic preference, music expertise, music stimuli complexity.

Zoomuzikološka istraživanja u Srbiji

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Teorijske osnove

Zoomuzikologija proučava muzičke aspekte i estetske kvalitete životinjskih zvučnih obrazaca (Mâche, 1983). *Primenjena zoomuzikologija* bio je izborni predmet za studente master i doktorskih akademskih studija na Fakultetu muzičke umetnosti u Beogradu od 2011. do 2017. godine.

Ciljevi

Cilj rada jeste prikaz zoomuzikoloških istraživanja u Srbiji kroz rezultate 30 studentskih seminar-skih radova i osam radova objavljenih u Srbiji i inostranstvu u toku poslednje decenije.

Glavni doprinos

Proučavanje sličnosti između komunikacijskih sistema ljudi i životinja (Petrović & Ljubinković, 2010; Petrović, 2014; Petrović, 2017; Petrović et al., 2017) i prepoznavanje muzičkih elemenata životinjskih zvučnih obrazaca u srpskoj narodnoj pesmi i plesu (Petrović & Ljubinković, 2011) ukazuje na poreklo muzike i jezika. Zapisivanje i analiziranje životinjskih zvučnih obrazaca ima snažne pedagoške implikacije, jer omogućava razumevanje osnovnih muzičkih elemenata (Petrović, 2009). U oblasti psihologije i sociologije, razmatra se uloga neverbalne komunikacije majmuna, mačaka, pasa i ptica (Petrović et al., 2014) i facijalne ekspresije koja je rezultat dejstva muzike na izražavanje emocija kod ljudi i životinja (Petrović, 2012).

Implikacije

Objavljeni radovi provode čitaoca kroz niz disciplina – muzičku pedagogiju, kognitivnu i evolucionu muzikologiju, muzičku teoriju, estetiku i kognitivnu psihologiju. Interdisciplinarnost zoomuzikologije otvara nove perspektive izučavanja porekla muzike, muzikalnosti i muzičke pedagogije.

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Ključne reči: zoomuzikologija, životinjski zvučni obrasci, primenjena zoomuzikologija, muzička pedagogija, muzički elementi.

Zoomusicology research in Serbia

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Theoretical background

Zoomusicology studies musical aspects of animal sound patterns and their aesthetic qualities (Mâche, 1983). *Applied zoomusicology* was the optional subject for MA and PhD students at the Faculty of Music in Belgrade from 2011 to 2017.

Aims

The aim of this paper is an overview of zoomusicology research in Serbia, resulting in 30 semi-ary works and eight articles that have been published in Serbia and abroad during the last decade.

Main Contribution

Studying similarities between humans' and animals' communication systems (Petrović & Ljubinković, 2010; Petrović, 2014; Petrović, 2017; Petrović et al., 2017) and finding music elements of the animal sound patterns in Serbian folk songs and dances (Petrović and Ljubinković, 2011) indicate the music and language origin. Notating and analyzing the animal sound patterns have strong pedagogical implications, enabling understanding of basic music elements (Petrović, 2009). In the field of psychology and sociology, the role of nonverbal communication of apes, cats, dogs and birds (Petrović et al., 2014) and facial expression as a result of the effect of music on emotional expression in humans and animals (Petrović, 2012) have been considered.

Implications

The published articles carry the reader through a series of disciplines - music education, cognitive and evolutionary musicology, music theory, aesthetics and cognitive psychology. The interdisciplinarity of zoomusicology opens new perspectives on music origin, musicianship and music education.

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Keywords: zoomusicology, animal sound patterns, applied zoomusicology, music education, music elements.

Psihološka istraživanja i filozofske rasprave o muzičkom značenju

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Teorijske osnove

Pitanje o značenju u muzici bilo je predmet interesovanja mnogih teoretičara i filozofa muzike. Na jednom kraju teorijskog spektra je shvatanje značenja u muzici kao „specifično muzičkog“, odnosno, značenja koje se iscrpljuje muzičkim idejama (Hanslick, 1986). Na drugom kraju je shvatanje da su sadržaj muzike ljudske emocije, odnosno, da se značenje u muzici svodi na emocionalno značenje (Baker & Christensen, 2006; Levinson, 1990; Robinson, 2005). U radu će biti pokazano da rezultati psiholoških istraživanja pružaju podršku manje ekstremnom, kompleksnijem shvatanju značenja koje obuhvata i različite vrste, kao i različita sredstva značenja (Meyer, 1956).

Ciljevi

Cilj rada je ispitivanje doprinosa eksperimentalnih psiholoških istraživanja filozofskim raspravama o muzičkom značenju. Određena ispitivanja bihevioralnih i elektrofizioloških reakcija na muzičke stimuluse (Steinbeis & Koelsch, 2008, Steinbeis, Koelsch, & Sloboda, 2006) pokazala su da u samom procesuiranju muzike postoji tesna veza između sintakse, semantike i emocija u muzici. Nakon prikaza nekoliko relevantnih psiholoških studija, biće izneta analiza načina na koji ovi rezultati mogu obogatiti klasičnu filozofsku debatu o muzičkom značenju.

Glavni doprinos

Originalni doprinos rada je u predlogu načina na koji se mogu povezati filozofska pitanja o muzici sa eksperimentalnim psihološkim istraživanjem. Premošćavanje jaza između ove dve oblasti koje se generalno smatraju veoma udaljenim, čak i nepovezivim, sastoji se u operacionalizaciji specifično estetičkih pojmova kao što su lepota, vrednost, sadržaj i forma, tako da im se pristupa preko empirijski merljivih fenomena kao što su specifično zadovoljstvo slušalaca, preferencije, kao i neurološki pokazatelji procesuiranja sintakse i semantike.

Implikacije

Implikacije rada će ukazati na veću kompleksnost pitanja o muzičkom značenju nego što se prećutno pretpostavlja u teorijskim raspravama. Druga bitna implikacija je ukazivanje na način na koji se ubuduće može pristupiti bavljenju estetičkim problemima muzike pomoću istraživanja eksperimentalne psihologije.

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Ključne reči: muzičko značenje, sintaksa, semantika, evocirani potencijali odgovora, emocije, filozofska estetika, empirijska estetika.

Psychological research and philosophical debates on musical meaning

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Background

The problem of meaning in music has been debated by numerous theorists and philosophers of music. At one end of the theoretical spectrum, the meaning in music is understood as 'specifically musical' meaning, i.e. the meaning exhausted by the musical ideas. (Hanslik, 1986). The other end of the spectrum is occupied by the view that the content of music consists in human emotions, i.e. that the meaning in music is emotional meaning (Baker & Christensen, 2006, Levinson, 1990, Robinson, 2005). The paper will demonstrate that the results of psychological research support a more complex view, which lies somewhere in the middle of the spectrum, and includes different types as well as different instruments of meaning (Meyer, 1956).

Aims

The aim of the paper is to examine the contribution of experimental psychological research for the philosophical debates on musical meaning. Certain studies of behavioral and electrophysiological reactions to musical stimuli have revealed the intimate relationship between the processing of syntax, semantics and emotion in music (Steinbeis & Koelsch, 2008, Steinbeis, Koelsch, & Sloboda, 2006). After presenting the results of several relevant psychological studies, the work will proceed with an analysis of the ways to enrich the classical philosophical debate on the meaning in music.

Main Contribution

Original contribution of the paper consists in suggesting a way to connect the philosophical debates on musical meaning with the experimental psychological research. Bridging the gap between these two fields, generally considered remote and even incompatible, consists in the operationalization of the specifically aesthetic concepts such as beauty, value, form and content, in a way that renders them approachable through the empirically measurable phenomena, such as the specific pleasure of the listeners, preferences, and also the neurological markers of syntax and semantics processing, respectively.

Implications

The implications of the paper will reveal higher complexity of the issue of musical meaning than is implicitly supposed in the theoretical debates. The second important implication is the suggestion of a way in which aesthetic questions concerning music can be approached with the help of experimental psychology in future research.

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Keywords: musical meaning, syntax, semantics, evoked response potential (ERPs), emotions, philosophical aesthetics, empirical aesthetics.

Komuniciranje emocionalnog narativa kroz muziku: igra podsvesnog uma

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Teorijske osnove

Naši odgovori na muziku su različiti, dinamični i često stvaraju snažan emocionalni naboj, koji se neretko određuje posredstvom metaforičnih opisa koji mapiraju osnove dimenzije doživljaja. Naše razumevanje ovih emocionalnih odgovora istraženo je kroz niz disciplinarnih i interdisciplinarnih pristupa koji su istraživali povezanost muzike i emocija. Interesovanje za muziku i emocije razvilo se u posebnu oblast izučavanja kroz rad Slobode (Sloboda, 2005), Tompsona (Tompson, 2009), Juslina i Slobode (Juslin & Sloboda, 2010) proširujući razumevanje odnosa između muzike i emocionalnih odgovora. Mnoge od ovih studija se fokusiraju na promene (emocionalne, fiziološke, bihevioralne) u kontrolisanom laboratorijskom okruženju, potvrđujući vezu između muzike i emocionalne epizode kao uzročno-posledične transformacije. Kako se naša sposobnost da istražujemo delovanje mozga povećava, u stanju smo da produbimo razumevanje načina na koji muzika izaziva emocije.

Ciljevi

U ovom istraživanju nastojimo da uključimo i druge faktore izvan aktuelnih studija, te je naša pažnja usmerena ka tome da razmotrimo načine na koje naše životno iskustvo utiče na sposobnost da na emocionalnom nivou odgovorimo na muziku. Predstavljamo višeslojni teorijski model za istraživanje ovog sveprisutnog odnosa između učenja kroz iskustvo i muzike. Najpre, razmatramo kako se postojeće teorije značenja, identiteta i emocija stapaju u individualno učenje života, koje ima snažan potencijal da bude povezano sa muzikom i očuvano u memoriji (Meyer, 1956; Tajfel, 1981; Tarrant, North & Hargreaves, 2002; Huron, 2006; Van den Tol & Ritchie, 2014). Zatim, razmatramo kako se emocionalnim značenjem muzike ovladava kroz interakciju sa drugim ljudima, što podrazumeva ličnu naraciju koja se može smatrati za važan deo kulturalnog i socijalnog učenja (Schiff, 2012). Konačno, tvrdimo da je emocionalna komunikacija nužno automatska, jer način na koji je pojedinac nesvesno u interakciji sa kulturom i društvom ima svoj funkcionalni duplikat u načinu na koji podsvest deluje (Lanaridis, 2017).

Metod

Perspektiva koju zastupamo se oslanja na teorije koje uvode, razrađuju i zagovaraju višeslojni, dijaloški kapacitet mozga koji generiše okidače u igri odlučivanja (Hermans & Hermans-Konopka, 2010). Da bismo razvili ovu perspektivu, koristimo koncept naracije da istražimo pitanje toga kako se automatski procesi pojavljuju u mislima kao emocionalni narativi.

Rezultati

Zastupamo teorijski i empirijski pristup emocionalnoj komunikaciji posredstvom muzike, koji se bazira na značenju, emociji i narativu. Umesto da se emocije posmatraju kao jedan 'uhvaćeni trenutak' ili kroz binarne termine kao što su 'tužno' ili 'srećno', naša inicijalna istraživanja pokazuju da se pojavljuju mnogo bogatiji emocionalni narativi. Ovo sugerise da je opravdano primeniti koncept narativa u daljem istraživanju nesvesnih odluka iz kojih nastaje ono što smo nazvali emocionalnim nabojem muzike.

Zaključci

Pristupili smo kompozitorima i njihovoj publici kao slušaocima i zaključili da je emocionalna komunikacija simultani interpretativni proces koji je pod jakim uticajem pojedinaca i grupa, te deo automatskih procesa koji se odigravaju u našoj podsvesti. Razmatrajući značenje muzike kao emocionalnog narativa, izlazimo izvan područja samog značenja u područje nastanka emocionalnog značenja, kako bismo razumevali način na koji, kao pojedinci, donosimo odluke.

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Ključne reči: muzika, komunikacija, emocije, narativ, značenje.

Communicating the emotional narrative through music: A game of the subconscious mind

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Background

Our responses to music are varied, dynamic and frequently create a strong emotional charge which is often categorized through the use of metaphorical descriptors which map the underlying dimensions of the experience. Our understanding of these emotional responses has been investigated through a range of disciplinary and interdisciplinary approaches that have explored how music and emotion connect. Interest in music and emotion has developed into a distinct field of study through the work of Sloboda (Sloboda, 2005), Thompson (Thompson, 2009), Juslin and Sloboda (Juslin & Sloboda, 2010) and expanded our understanding of the relationship between

music and emotional responses. Many of these studies focus on change (emotional, physiological, behavioral) within a controlled laboratory environment verifying a connection between music and an emotional episode which registers as a cause and effect transformation. As our capacity to explore the workings of our brain increases, we may deepen our understanding of the way music evokes emotions.

Aims

We are now at a stage where we might include other factors beyond current studies and our attention here is to consider the way that our lived experience impacts on our ability to respond to music at an emotional level. We present a multi-layered theoretical model to explore this ongoing relationship between experiential learning and music. Firstly, we consider how existing theories of meaning, identity and emotion converge into an individual's life-learning, which holds a strong potential to be linked to music and be retained in memory (Meyer, 1956; Tajfel, 1981; Tarrant, North & Hargreaves, 2002; Huron, 2006; Van den Tol & Ritchie, 2014). Secondly, we consider how the emotional meaning of music is acquired through the interaction with other people, which entails personal narrative that can be seen as an important part of cultural and social learning (Schiff, 2012). Finally, we propose that the emotional communication is necessarily an automatic one because the way the individual interacts with the culture and society in their conscious mind finds a perfectly functioning duplicate in their subconscious (Lanaridis, 2017).

Method

This perspective draws on theories that introduce, develop and support the multi-voiced, dialogical capacity of the brain which generates triggers in the decision-making game (Hermans & Hermans-Konopka, 2010). To do this we use narrative as a way of exploring the way that these automatic processes emerge in the thoughts as an emotional narrative.

Results

We present a theoretical and empirical approach of emotional communication through music based on meaning, emotion and narrative. Rather than consider emotion as a 'snapshot' or in binary terms such as 'sad' or 'happy' our initial studies demonstrate that a much richer emotional narrative emerges that suggests that further study into narrative as a way of exploring the subconscious decisions that give rise to what we have termed the emotional charge of music.

Conclusions

Our approach looks at composers and their audience as listeners and suggests that emotional communication is a simultaneous interpretative process that is heavily influenced by individuals and groups of significance and that becomes part of the automatic processes of the subconscious. By considering the meaning of music as an emotional narrative we look beyond the meaning itself and to the process of making emotional meaning and to further understand how we as individuals make the decisions we do.

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Keywords: music, communication, emotion, narrative, meaning.

Značenjska nadogradnja arhetipova u muzici postmodernizma

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Teorijske osnove

U okviru različitih intertekstualnih relacija ostvarenih između jezičko-stilskih vrednosti 'starijeg' i 'mlađeg' dela (Bloom, 1973), primećeno je da dolazi do veza koje bi različito mogle da budu hijerarhizovane. Baveći se referencama prošlosti u tonalnoj muzici prve polovine 20. veka, pošao sam od gudmanovske (Goodman, 1976) pretpostavke da jezičko-stilski (tonalni) obrasci predstavljaju simbole koji egzemplifikuju samo određene karakteristike starih stilova, resemantizujući ih u nove, modernističke jezičko-stilske vrednosti. Hijerarhija simbola u takvom procesu kretala se od njihovog doslovnog ponavljanja, preko polovičnog ili delimičnog markiranja, pa sve do stepena na kome oni postaju univerzalni simboli, deo takozvanog 'dubinskog teksta', odnosno, arhitekstualnih odnosa. Termin simbol je uzet u obzir zbog jungovske pretpostavke da simboli, poput iskonskih slika, već postoje u praporetku stvari, dakle, u nekoj 'dubinskoj' strukturi (Jung, 1981). U radu se polazi od teze da je izrazita narativnost u postmodernizmu, za razliku od modernizma, podstaknuta nemešanjem simbola u ukupnom poretku dela. Oni se nedvosmisleno *decentralizuju* u odnosu na kontekst iz kog su istrgnuti.

Ciljevi

Cilj je određenim strategijama, objedinjenih osnovnom strategijom *decentralizacije*, prikazati sliku istrgnutu iz izvornog okruženja originalnog stila – sliku dovedenu do nivoa univerzalnosti.

Metod

Razmatranje neprestanih simultanih i sukcesivnih odnosa između simbola, (onoga što Liška naziva *transvaluacijom*; Liszka, 1989), dovešće do identifikovanja primarnih arhetipskih obrazaca koji su deo dubinske dinamičke strukture muzičkog dela. U kompoziciji *Soneti* Svetlane Savić, dolazi do nizanjanja simbola koji referiraju na romantičarski valcer, tretman pastorale u francuskoj muzici 20. veka, ili su tekstovi soneta svedeni na izgovor jedne reči kojoj se pridaje značaj i najzad, konkretnim zvukovima su označene pojave iz prirode. U ovom kolažu, simboli se ne mešaju niti u vertikalnom, niti u horizontalnom poretku, pa se čini da su dovedeni na nivo arhetipova, odnosno, u tolikoj meri su 'oslobođeni' naslaga značenja da stvaraju konstelaciju u kojoj pitanja *kada?*, *gde?* i *zašto?* gube svoj smisao. U klavirskom koncertu *It?* Ivana Brkljačića simboli su na samoj površini, te tako, kao na filmskom platnu, može da se prati protok univerzalnih modela-simbola, koji u takvoj konstelaciji mogu da se posmatraju kao arhetipovi. U kompoziciji *Drvo života* Ivane Stefanović grana se sama forma, odnosno, dolazi do ponavljanja arhetipske predstave životnog uzrastanja.

Rezultati

U samoj suštini, arhetipovi su određenim kompozitorskim strategijama dovedeni u takav kontekst da ne samo što ukazuju, već kao da nadograđuju sadržaj kolektivnog nesvesnog. Kroz proces osveščivanja tog sadržaja, dolazi do njegovog prihvatanja i prevođenja u kontekst novog značenja, odnosno, stila (postmodernizma). Biće pokazano da su postmodernistički simboli usmereni ka gradnji osnovnih narativnih arhetipova, komedije, romanse, ironije/satire, tragedije (Liszka, 1989; Almen, 2008) na takav način, da se ne stvaraju zatvoreni svetovi, totaliteti. Naprotiv, postmodernistički kontekst gradi takvu konstelaciju simbola koja značenja postavlja onakvim kakvi

bi oni mogli da postoje u zamišljenom ili stvarnom praporetku, te ih otuda mnogi autori svode na puke označitelje (Huysen, 1984).

Zaključci

Rad će predstavljati pokušaj, da se objasni stilski osoben, postmodernistički način stvaranja mreže međusobnog delovanja simbola kroz arhitekstualnost. Osveščivanje međusobnog gdelovanja simbola, koji kao svojevrsne dinamičke energetske mašine bivaju pokrenute određenim strategijama, ukazaće i na značenjske implikacije nadogradnje arhetipova.

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Ključne reči: arhetip, simbol, transvaluacija, postmodernizam, decentralizacija.

The sign upgrading of archetypes in the music of postmodernism

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Background

Within various intertextual relations between the linguistic and stylistic values of the 'older' and 'younger' work (Harold Bloom, 1973), it has been observed that there are links that could be hierarchized in different ways. By focusing on the past references in tonal music of the first half of the twentieth century, I started from Goodman's (Goodman, 1976) assumption that linguistic-stylistic (tonal) patterns represent symbols that exemplify only certain characteristics of old styles, resemantizing them into new, modernistic, linguistic and stylistic values. The hierarchy of the symbols in such a process ranged from their literal repetition, through half or partial signifying, to the extent that they become universal symbols, part of the so-called 'deep text', that is, of architectural relations. The term symbol is taken into account because of the Jungian assumption that symbols, as primordial images, already exist in the primordality of things, therefore, in some 'deep' structure (Jung, 1981). The paper starts from the thesis that the pronounced narrative-ness in postmodernism, unlike modernism, is spurred by non-interference of the symbols in the overall order of the work. They are unambiguously *decentralized* in relation to the context from which they were taken out.

Aims

The goal is to apply some strategies, incorporated by the basic *decentralization* strategy, to present the image taken from the original environment of the original style – the image brought to the level of universality.

Method

The consideration of incessant simultaneous and successive relationships between the symbols (what James Jacob Liszka calls *transvaluation*; Liszka, 1989) will lead to the identification of primary archetypal patterns that are part of the deep dynamic structure of the musical work. In the composition *Soneti* by Svetlana Savić, there is a string of symbols referring to a romantic waltz, a pastoral treatment in French music of the twentieth century, or the sonnet texts are reduced to the pronunciation of one word to which the significance is attached and, finally, by concrete sounds are marked phenomena from nature. In this collage, the symbols do not interfere neither in the vertical nor in the horizontal order, so they appear to have been brought to the level of archetypes, that is, they are “liberated” from the burden of meaning to such an extent to create a constellation in which questions *when*, *where?* and *why?* lose their sense. In the piano concert *It?* by Ivan Brkljačić the symbols are on the very surface, and so, like on the screen, the flow of universal model-symbols can be followed, which in such a constellation can be viewed as archetypes. In the composition the *Tree of Life* by Ivana Stefanović the very form is being branched, that is, the repetition of the archetypal performance of life growing up occurs.

Results

In essence, archetypes have been brought into such a context by certain compositional strategies not only to indicate but to upgrade the content of the collectively unconscious. Through the process of this content awareness, its acceptance and translation into the context of a new meaning, that is, the style (of postmodernism), takes place. It will be shown that postmodernist symbols are aimed at constructing basic narrative archetypes, comedy, romance, irony/satire, tragedy (Liszka, 1989; Byron, 2008) in such a way that the closed worlds, totalities are not created. On the contrary, the postmodernist context builds such a constellation of symbols that places the meanings as they might be in an imaginary or real primordial order, and thus many authors reduce them to mere signifiers (Huysen, 1984).

Conclusions

The paper will be an attempt to explain the stylistic, postmodernist way of creating a network of the interaction of symbols through architextuality. Awareness of the interplay of symbols, which, as some kind of dynamic energy machines, are triggered by certain strategies, will also point to the significant implications of the upgrade of archetypes.

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Keywords: archetype, symbol, transvaluation, postmodernism, decentralization.

Motiv muzike u psihološkoj prozi Vladimira Bartola

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Teorijske osnove

Vladimir Bartol (1903–1967) je studirao biologiju i filozofiju na Filozofskom fakultetu u Ljubljani, a na usavršavanju na Sorboni u Parizu je slušao predavanja iz biologije i psihologije. Njegova kratka proza i roman (*Alamut*, 1938) imaju odrednice koje ih povezuju sa psihološkom i filozofskom literaturom. Istodobno stavljaju u središte zanimanja kozmopolitski tip literarnog lika i fiktivnu stranu kulturu, odnosno, civilizaciju. Recepcija njegovih dela je u inozemstvu izuzetno pozitivna, dok je odnos prema tom autoru u slovenačkoj literarnoj istoriji još uvek ambivalentan (Kos, 1991; Vodopivec, 2013). To potvrđuje i kasni početak (tek od 2012. godine) izdavanja njegovih sabranih dela. Jedan od razloga za nerazumevanje tog autora u njegovo doba jeste, već tada, i njegova upotreba pojedinih narativnih tehnika postmodernizma. Na njegovo stvaralaštvo su bitno uticali psihoanaliza, filozofija volje za moć, te psihološka literatura Sofoklesa, Šekspira, Getea, Poa i Dostojevskog.

Ciljevi

Pomoću analitičkih i sintetičkih metoda istražuje se odabrana kratka proza i roman, sa konstitutivnim elementima psihološke literature na razini karakterizacije likova, narativnih postupaka i značenja. U tim delima se opredeljuje i funkcija muzike kao literarnog motiva na razini vanjske forme (npr. muzički termini u naslovima: sonata, kantata) odnosno na razini unutrašnje forme ili sadržaja (npr. kao jedan od ključnih elemenata koji potiče i usmerava naraciju).

Glavni doprinos

Istraživanje uticaja psihoanalitičke metode, Ničeovog čitanja Vagnera, te Bartolovog razumevanja filozofema kao simfoničke muzike i vlastitog stvaralačkog procesa kao komponovanja, donose novi pogled na njegovu prozu. Do sada su bili, naime, isticani drugi vidici uticaja tog filozofa (Kos, 2000) ili drugih filozofa i književnika (Košuta, 1983; Hladnik, 2004; Markič, 2005) odnosno drugi vidici njegove proze, npr. negativan odnos prema ženama (Virk, 2015).

Implikacije

Za što preciznije određivanje onih slojeva Bartolove proze koji se povezuju sa psihologijom i muzikom potrebna je primena multidisciplinarnе obrade predmeta istraživanja. Autor sam je u tom smislu autoreferencijalan, jer svoje literarno stvaralaštvo pojašnjava u svojim dnevničkim i esejističkim radovima. Detaljnijom analizom se u Bartolovoj literaturi mogu odrediti i komponente koje odražavaju uticaj autorovih biografskih elemenata na njegovo književno stvaranje (na razini uticaja filozofa, psihologa i književnika, odnosno, na razini literarne radnje i likova).

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Ključne reči: Vladimir Bartol, Fridrih Niče, Rihard Wagner, psihološka proza, motiv muzike.

The motif of music in Vladimir Bartol's psychological prose

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Background

Vladimir Bartol (1903–1967) studied biology and philosophy at the Faculty of Arts in Ljubljana, and further on, biology and psychology at Sorbonne in Paris. His short prose and novel (*Alamut*, 1938) have the characteristics of psychological and philosophical literature. They also introduce the cosmopolitan type of literary character and a fictional foreign culture or civilization. His works' reception abroad has been very positive, but the attitude towards this author in Slovenian literary history is still ambivalent (Kos, 1991; Vodopivec, 2013). The start of his complete works' publishing (only after 2012) proves it. One of the reasons of this author's incomprehension in his era is also his use of some postmodernist narrative techniques even then. His writing was fundamentally influenced by psychoanalysis, the philosophy of the will to power and psychological literature by Sophocles, Shakespeare, Goethe, Poe and Dostoevsky.

Aims

By analytic and synthetic methods, the selected short prose and novel are researched, with constituent elements of psychological literature in characterization, narrative and meaning. There is also defined the function of music as a literary motif in the form (e.g. musical terms in titles: sonata, cantata), or in contents (e.g. as one of the key elements motivating and directing the narrative).

Main Contribution

The research of influences of the psychoanalytical method, Nietzsche's reading of Wagner and Bartol's comprehension of philosophical concepts as symphonic music and his creative process as composing music brings a new point-of-view upon his prose. So far, there other aspects of this philosopher's were emphasized (Kos, 2000) or other philosophers' and writers' influences (Košuta, 1983; Hladnik, 2004; Markič, 2005), or other aspects of his prose, e.g. his negative attitude towards women (Virk, 2015).

Implications

To define as precisely as possible the layers of Bartol's prose connected to psychology and music, it is necessary to use the multidisciplinary approach. Thus, the author is autoreferential in his diaries and essays. By a more detailed analysis, there can be also defined in Bartol's literature the components reflecting the influence of author's biographical elements upon his literary creativity (in terms of philosophers, psychologists and writers, or in a literary plot and characters).

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Keywords: Vladimir Bartol, Friedrich Nietzsche, Richard Wagner, psychological prose, the motif of music.

Tematski simpozijumi

Thematic Symposiums

SIMPOZIJUM 1

Ravelova *Ondina* na horizontima Jungove i Bašlarove teorije
organizovao Igor Radeta

SYMPOSIUM 1

Ravel's *Ondine* on the horizons of Jung's and Bachelard's theories
organized by Igor Radeta

Ravelova *Ondina* na horizontima Jungove i Bašlarove teorije

Teorijske osnove

Simpozijum pod naslovom *Ravelova Ondina na horizontima Jungove i Bašlarove teorije* je teorijski utemeljeno izlaganje/rasprava o svetu muzike iz vizure psiholoških teorija. Polazna pretpostavka sesije jeste da je muzika, samim tim i muzičko delo, polje na kome se mogu sagledavati učinci ljudske psihe u njenim višestrukim i složenim ispoljavanjima, od kojih je poetički aspekt od posebnog značaja u konkretnom slučaju. Zbog svoje višeznačnosti kao i prisustva poetskog teksta koji je integralni deo kompozicije za primer je odabran prvi stav klavirskog ciklusa *Gaspar noći*, pod nazivom *Ondina*, francuskog kompozitora Morisa Ravela (Mawer, 2000). Autori su se opredelili za teorije Junga i Bašlara kao najadekvatniji okvir mogućim promišljanjima odabrane problematike.

Simpozijum će početi uvodnim izlaganjem o opštim principima analitičke teorije (Jung, 1969, 1996) i Jungovim/Bašlarovim postulatima. U prvom samostalnom segmentu govoriće se o mogućnostima sagledavanja dramaturgije muzičkog komada prema konceptu psihe Karla Junga. Biće izvedena analitičko-interpretativna argumentacija *Ondine* kao svojevrsne „svesno-nesvesne celine” u spoljašnjoj manifestaciji (Jung, 1984). U narednom delu raspravljaće se o načinima prisustva arhetipa anime u Ravelovom klavirskom komadu putem analize narativnih matrica. Konačno, u završnom, centralnom odeljku izlaganja predstaviće se interpretativni potencijali *Ondine* u kontekstu Bašlarove teorije materijalne imaginacije (Bašlar, 1998), a pogotovo imaginacije vode, vodene psihe itd.

Jungova analitička psihologija, psihološka teorija umetnosti, naratologija, semiotika, muzička analiza, Bašlarovo psihološko tumačenje fenomena vode i njegova postavka imaginacije materije i dramaturška analiza čine skup pristupa/konceptata/teorija/metoda koji predstavljaju jezgro teorijske osnove simpozijuma.

Ciljevi

Otkriti načine na koje se fenomeni muzičkog dela mogu uočiti, zastupati, razumeti i protumačiti na osnovu temeljnih postavki psihološke teorije, konkretno analitičke psihologije Karla Junga i date psihologije elementa vode Gastona Bašlara. Očekivani rezultati istraživanja ukazaće na postojanje uticaja psihičkih struktura na formalni i sadržajni plan muzičkog dela, kako u dramaturškoj celini tako i u pogledu pojedinačnih fenomena (arhetipa anime i elementa vode).

Učesnici

Milica Lazarević: Dramaturgija Ravelove *Ondine* iz perspektive Jungovog koncepta psihe

Igor Radeta: *Ondina* kao anima u kontekstu narativnih strategija Ravelovog *Gaspar de la Nuit*

Marija Simonović: Ravelova *Ondina* iz vizure Bašlarovog ogleda o vodi i snovima

Glavni doprinos

Uvećavanje opšteg fonda znanja u interdisciplinarnom povezivanju dometa muzikološkog i psihološkog polja, putem primene konceptata psihološke teorije. Ukazivanje na različite analitičke mogućnosti pristupa muzičkom delu, a naročito rasvetljavanje načina projekcije psihičkih fenomena na poetičke aspekte stvaralaštva na planu muzičke umetnosti.

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Ravel's *Ondine* on the horizons of Jung's and Bachelard's theories

Background

The symposium titled *Ravel's Ondine on the horizons of Jung's and Bachelard's theories* is a theoretically grounded presentation/discussion about the world of music from the perspective of psychological theories. The starting point of the session is that music, and therefore the musical piece itself, is a space in which the effects of the human psyche can be observed in its multiple and complex manifestations, of which the poetical aspect is of the particular importance in this specific case. Because of its meaning multiplicity, as well as the presence of poetic text which is an integral part of the composition, the first piece from the piano cycle *Gaspard de la Nuit – Ondine* by French composer Maurice Ravel (Mawer, 2000) was chosen as an example. The authors have opted for Jung's and Bachelard's theories as the most adequate framework for possible deliberations of the selected issues.

The symposium will begin with an introductory presentation on the general principles of analytical theory (Jung, 1969, 1996) and the Jung's/Bachelard's postulates. In the first independent segment, the possibilities of perceiving the dramaturgy of the musical piece according to Carl Jung's concept of the psyche will be discussed. The analytical-interpretative argumentation of *Ondine* as a special "consciously-unconscious" entity in an external manifestation (Jung, 1984) will be carried out. In the next section, the ways the archetype of anime is present in Ravel's piano piece will be discussed through the analysis of narrative matrices. Finally, in the last, central section of the presentation, the interpretative potentials of *Ondine* will be presented in the context of Bachelard's theory of imagination of matter (Bachelard, 1998), and especially the imagination of water, water *psyche*, etc.

Jung's analytical psychology, psychological theory of art, narratology, semiotics, musical analysis, Bachelard's psychological interpretation of the phenomenon of water and his postulate of the imagination of matter and analysis of a dramaturgy form an aggregate of approaches/concepts/theories/methods that represents the core of the theoretical basis of our symposium.

Aims

Recognize the ways in which the phenomena of the musical work can be detected, advocated, understood and interpreted based on the fundamental settings of the theory of psychology, more specifically Carl Jung's analytical psychology and Gaston Bachelard's psychology of the element of water. The expected research results will indicate the existence of psychological structures' impact on the formal and content part of the musical work, both in the dramaturgical whole and in the terms of individual phenomena (anima archetype and water element).

Contributors

Milica Lazarević: Dramaturgy of *Ondine* by Ravel from the perspective of Jung's concept of psyche

Igor Radeta: *Ondine* as an anima in the context of narrative strategies of Ravel's *Gaspard de la Nuit*

Marija Simonović: *Ondine* by Maurice Ravel from the viewpoint of Bachelard's essay on water and dreams

Main Contribution

Increasing the general knowledge found in the interdisciplinary connection of the range of musicological and psychological fields, through the application of the concepts of the theory of psychology. Pointing to different analytical possibilities in approaching the piece of music, and especially illuminating the ways of projecting psychic phenomena to the poetic aspects of artistic creation in the field of music.

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Dramaturgija Ravelove *Ondine* iz perspektive Jungovog koncepta psihe

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Teorijske osnove

Dramaturgija stava *Ondina* iz programskog klavirskog ciklusa *Gaspar noći* Morisa Ravela sagledava se na osnovu koncepta psihe Karla Gustava Junga. Jung određuje psihu kao relativno zatvoren, energetski sistem, odnosno „svesno-nesvesnu celinu“ (Jung, 1984), koju karakteriše konstantan protok životne, psihičke energije – libida, putem njegove progresije i regresije, to jest mehanizama prilagođavanja individue na uslove spoljašnjeg i unutrašnjeg sveta (Jung, 1978; Hark, 1998). U procesu prilagođavanja, odnosno uspostavljanja psihičke ravnoteže bitnu ulogu imaju arhetipske predstave, svojevrsni nesvesni regulatori psihičkih procesa, „duševne životne sile“ koje uređuju duševna doživljavanja u procesu ocelotvorenja, individuacije i samoostvarenja svakog čoveka (Jung, 1984). Sledeći Jungov model psihe, analitičko-interpretativni pristup Ravelovoj *Ondini* fokusiraće se na osvetljavnje muzičko-dramaturške celine kompozicije iz naznačenih aspekata dinamičnog psihičkog fenomena.

Ciljevi

Namera je da se pokaže da Ravelova *Ondina* figurira kao svojevrsna „svesno-nesvesna celina“ u spoljašnjoj manifestaciji (budući da je reč o muzičkom delu), u kojoj se mogu prepoznati kretanje libida, procesi progresije i regresije, kao i arhetipske predstave. S tim u vezi, ukazaće se na specifičnost dramaturgije muzičke kompozicije i njenog programskog predloška, a koja, uostalom, već svojim naslovom ukazuje na arhetip anime.

Glavni doprinos

Bogata muzikološka literatura o Ravelovom stvaralaštvu uopšte bavi se različitim problematizacijama kompozitorove muzike (Bruhn, 1997; Mawer, 2000; Radeta, 2011). Pokušaji tumačenja Ravelovih dela iz vizure Jungove analitičke psihologije nisu, pak, česti. Štaviše, dosledna primena Jungovih postavki u pristupu Ravelovim delima u potpunosti je izostala. Tako bi ovaj rad predstavljao jedinstveni pokušaj sagledavanja Ravelove *Ondine* na osnovu Jungovog koncepta psihe.

Implikacije

Naznačena problematika implicira kompleksno pitanje odnosa između muzike i čovekove psihe uopšte, pored ostalog, načine manifestacija svesnih i nesvesnih psihičkih procesa u muzičkom delu, te nadasve složenu činjenicu da je muzika specifičan, složeni mehanizam balansiranja potencijala ličnosti.

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Ključne reči: Moris Ravel, *Ondina*, *Gaspar noći*, Karl Gustav Jung, analitička psihologija, arhetipske predstave.

The dramaturgy of *Ondine* by Ravel from the perspective of Jung's concept of Psyche

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Background

The dramaturgy of the movement *Ondine* from the program piano cycle *Gaspard de la Nuit* by Maurice Ravel is considered on the basis of the concept of the psyche by Carl Gustav Jung. Jung determines the psyche as a relatively closed, energy system, i. e. “conscious-unconscious whole” (Jung, 1984), characterized by a constant flow of life, psychic energy – libido, by means of progression and regression, i. e. an individual adaptation mechanisms to the conditions of external and internal world (Jung, 1978; Hark, 1998). In the adaptation process, i. e. process of establishing psychological balance, an important role is played by archetypal images, some kind of unconscious regulators of directing psychic processes, “spiritual life forces” which regulate spiritual experiences in the process of wholeness, individuation, self-realization of every human being (Jung, 1984). Following Jung's model of the psyche, analytical-interpretive approach to Ravel's *Ondine* will focus on illumination of the musical-dramatic whole of the composition from the indicated aspects of a dynamic psychic phenomenon.

Aims

The intention is to show Ravel's *Ondina* as a kind of “conscious-unconscious entity” in an external manifestation (since it is a piece of music), in which the libido movement, the processes of progression and regression, as well as archetypal images can be identified. In connection with this, it will point out the specificity of the dramaturgy of the musical composition and its program, which, by the way, already points to the archetype of anime.

Main Contribution

Rich musicological literature on Ravel's work deals with various problematizations of composer's music (Bruhn, 1997; Mawer, 2000; Radeta, 2011). The attempts to interpret Ravel's works from the perspective of Jung's analytical psychology are not common. Moreover, the consistent application of Jung's settings in the approach to Ravel's works is completely absent. Thus, this paper would represent a unique attempt to observe Ravel's *Ondine* on the ground of Jung's concept of the psyche.

Implications

Indicated problems imply the complex issue of the relationship between music and the human psyche in general, among other things, the manifestations of conscious and unconscious psychic

processes in music, and above all the tangled fact that music is a specific, complex mechanism of balancing personality potentials.

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Keywords: Maurice Ravel, *Ondine*, *Gaspard de la Nuit*, Carl Gustav Jung, analytical psychology, archetypal images.

Ondina* kao anima u kontekstu narativnih strategija Ravelovog *Gaspard de la Nuit

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Teorijske osnove

Teorijski temelj rada predstavlja u najširem smislu psihološka teorija, onako kako ju je u okviru sopstvene analitičke psihologije formulisao Karl Gustav Jung (Jung, 1969, 1996). Teorijsku platformu dopunjavaju naratologija, semiotika i muzička analiza (Bal, 2000; Prince, 2003; Tarasti, 1994, 2000, 2002; Bruhn, 1997). Treba imati u vidu da se svi navedeni teorijski pristupi imaju prilagoditi potrebama uvida u muzičko delo, koje je osnovni predmet našeg istraživanja. Unutar jungovske analitičke teorije poseban naglasak će biti stavljen na koncept anime kao arhetipa nesvesnog ali i kao pojma u opštijem, kulturnom i umetničkom odrazu.

Ciljevi

Predviđeno je da studija ukaže na značaj primene psiholoških teorija u istraživanju umetnosti, u našem slučaju muzike (Jung, 1966). Takođe, očekuje se isticanje kvalitativnog doprinosa razumevanju dela, specifičnog za ugao analitičke teorije, odnosno ukazivanje na autentični uvid koji se može formulisati jedino iz jungovske perspektive. Jedan od ciljeva rada je i prezentovanje različitih mogućnosti tumačenja narativa u muzičkom delu putem primene koncepta anime: Bertranova poema kao pripovedni okvir, mitski diskurs, Ravelova kompozicija kao muzički ram, alegorijski prikaz puta individuacije, muzički proces kao metafora psihoseksualne dinamike (Palja, 2002), lanac arhetipova kao narativ kolektivno nesvesnog i priča anime u prvom licu.

Glavni doprinos

Značaj studije u kojoj se istražuje aplikativni potencijal koncepta anime u prvom redu je interdisciplinarnan, jer je svedočanstvo o mogućnostima plodotvorne saradnje između različitih humanističkih disciplina. Pokazaće se da je uspostavljanje interdisciplinarnih veza od značaja za sve oblasti koje autor sintetiše u svom pristupu. Muzikološki diskurs biva obogaćen terminologijom i konceptualnim postavkama analitičke teorije dok naratologija zadobija konkretne primere antropološkog vida kroz razumevanje psihološke dinamike i umetničkog/muzičkog vida kao ispoljavanje specifičnih načina pripovedanja. Konačno, psihološki aspekti i uslovnosti muzičke naracije kao i propozicioni modeli detekcije dejstva anime unutar muzičkog dela uvećavaju fond i tip znanja primenjene psihologije, psihološke teorije umetnosti kao i analitičke psihologije.

Implikacije

Potencijalne posledice istraživanja mogu se odnositi na širok spektar teorijskih i praktičnih zaključaka. U prvom redu, istraživanje modaliteta pojave arhetipa anime u muzici može rezultovati pronalaženjem inovativnih teorijskih modela za objašnjenje tipologije manifestacija ovog jungijanskog koncepta. U praktičnom pogledu izneti uvidi i njihovi konkretni ishodi mogu omogućiti nove načine doživljavanja i slušanja dela ali i razumevanja njegovih intrinzičnih relacija.

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Ključne reči: anima, *Ondina*, *Gaspar noći*, analitička psihologija, narativ, muzička analiza, Moris Ravel, Karl Gustav Jung.

Ondine* as an anima in the context of narrative strategies of Ravel's *Gaspard de la Nuit

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Theoretical background

The theoretical background of this paper is based on psychological theory in the widest sense of the word, in a way, it was formulated by Carl Gustave Jung in his analytical psychology (Jung, 1969, 1996). Our theoretical platform is complemented with narratology, semiotics and music analysis (Bal, 2000; Prince, 2003; Tarasti, 1994, 2000, 2002; Bruhn, 1997). One should have in mind the fact that all aforementioned approaches will be adjusted to a specific theoretical needs of a central object of interest – musical piece itself. Special emphasis is going to be put on an anima concept, inside the Jungian analytical theory, as an archetype of the unconscious, and also as a term in broader, cultural and artistic sense.

Aims

It is envisaged that the study emphasizes the importance of application of psychological theories in art research, in our case – of music (Jung, 1966). Also, one can expect accent on a qualitative contribution to the understanding of a musical work, from the angle of analytical theory, in other words – pointing to an authentic insight, possible solely from the Jungian perspective. One of the goals of this paper is to present a various possibilities of interpretation of a narratives in the musical work through the working of the anima concept: Bertrand's poem as a chronicle frame, mythical discourse, Ravel's composition as a musical framework, allegorical display of the path of individuation, musical process as a metaphor of the psychosexual dynamics (Palja, 2002), chain of archetypes as a narrative of the collective unconscious and the story of anima itself.

Main Contribution

The significance of the study in which the applicative potential of the anima concept has been explored is primarily interdisciplinary because it is a testimony about the capabilities of fruitful cooperation inside humanities. It will be shown that all disciplines can benefit from these inter-connections. Musicological discourse is enriched by the terminology and conceptual settings of the analytical theory, whereas narratology attains concrete examples of anthropological character through understanding the psychological dynamics and artistic/musical vision as the manifesta-

tion of specific ways of storytelling. At last, psychological aspects and conditionality of musical narration, as well as propositional models of detection of the effects of anima within the musical work, enlarge the fund and certain type of knowledge in the field of applied psychology, theoretical psychoanalysis along with analytical psychology.

Implications

The feasible consequences of the research can relate to a wide scope of theoretical and practical ends. In the first instance, exploring the modalities of archetypal occurrence of anima form in music can result in finding an innovative theoretical paradigm for explaining a typology of the manifestation of this Jungian concept. In the practical sense, elaborated insights and their particular outcome could empower the fresh ways of experiencing a musical piece, but also the comprehension of its intrinsic relations.

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Keywords: anima, *Ondine*, *Gaspard de la Nuit*, analytical psychology, narrative, music analysis, Maurice Ravel, Carl Gustav Jung.

Ravelova *Ondina* iz vizure Bašlarovog ogleđa o vodi i snovima

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Teorijske osnove

Teorijska platforma na osnovi koje će se sagledavati *Ondina* Morisa Ravela (komad iz kompozitorovog klavirskog ciklusa *Gaspar noći*) jeste Bašlarova (Gaston Bachelard) interpretacija i kategorizacija elementa vode data u delu *Voda i snovi. Ogljed o imaginaciji materije* (*L'eau et les rêves: Essai sur l'imagination de la matière*, 1942). Autor u ovom delu pruža psihološko i psihoanalitičko tumačenje ('pesničkih slika') elementa vode. Drugim rečima, detaljno se bavi problematizacijom elementa vode, *vodene psihe*, tipa intimnosti koju nagoveštava 'dubina' vode, ispituje *govor vode, moral vode...* To jest, autor (psiho)analizom (pesničkih) 'slika' vode istražuje i prodire u prostor imaginacije (u područje nesvesnog), traga za 'strukturama slike' pre nego što je ona postala završeno/zapisano umetničko delo, traga za onom dubinskom, osnovnom 'slikom'/mentalnom predstavom – koja je pokrenula (materijalnu) imaginaciju i prouzrokovala nastanak određenog umetničkog dela.

Trebalo bi pomenuti i to da me je na ovakav teorijski pristup podstaklo istraživanje Mišela Embertija (Michel Imberty) koji se, prilikom sagledavanja muzičkog stila iz psihološke i psihoanalitičke vizure, a konkretno u slučaju stilističke analize Debisijevih *Prelida* za klavir, poziva upravo na Bašlara i njegovo poimanje *materijalne imaginacije* dato u već pomenutom delu *Voda i snovi*. S tim u vezi, smatram da je vrlo zanimljivo, a i opravdano, primeniti Bašlarovu interpretaciju elementa vode i *materijalne imaginacije* na umetničko delo (*Ondinu*) koje već svojim naslovom upućuje na element vode, odnosno, ukazuje na to da se radi o muzičkoj transpoziciji specifične 'slike' vode – vodene vile – koja sa sobom nosi određeni *govor, moral, ćud, psihi* i koja (iza sebe sigurno) 'krije' specifičnu dubinsku/intimnu 'sliku'.

Ciljevi

Posredstvom analitičkog, komparativnog i interpretativnog pristupa otkriće se kojim (kompozicionim) sredstvima Ravel interpretira 'sliku' vode – 'sliku' *Ondine*, odnosno, koje su muzičke karakteristike datih 'slika' vode. Potom će se ukazati na korespondentnost sa određenim (psihološkim) tipovima elementa vode kod Bašlara i težiće se, u skladu sa Bašlarovom klasifikacijom elementa vode, otkrivanju one dubinske/intimne 'slike' (u Ravelovoj *Ondini*).

Glavni doprinos

Sagledavanje Ravelove *Ondine* iz vizure Bašlarovog ogleđa o vodi i snovima otkriće jednu sasvim specifičnu i novu 'sliku' Ravelove kompozicije. Takođe, ukazaće na još jedan mogući način tumačenja, poimanja, ali i interpretiranja umetničkog/muzičkog dela.

Ono što je takođe zanimljivo jeste to što će se u radu iskristalisati kako i na koji način element vode sa svim svojim metamorfozama, promenama toka/fluksa dozvoljava prožimanje, usecanje, uodnošavanje različitih 'disciplina' kao što su filozofija, psihologija, psihoanaliza, ali i muzika, književnost, (u ovom slučaju) moguće i slikarstvo.

Implikacije

Element vode se u Bašlarovom ogleđu, ali i u Ravelovom delu, ističe kao svojevrсна arhetipska slika, ta (arhetipska) slika, prema Bašlaru, aktivira materijalnu imaginaciju – koja potom radi i operiše sa datom slikom. Ovaj rad, čini se, implicira da kada se radi o elementu vode kao o arhetipskoj slici materijalna imaginacija (zajedno sa aktivnom/stvaralačkom imaginacijom) pro-

dukuje dela koja karakteriše sasvim specifična (fluidna, vibrantna, varljiva) poetika – poetika azurnog/plavog elementa – poetika elementa vode. Drugim rečima, čini se da fenomen vode (u sebi i prema sebi) ima specifičnu poetiku koju pruža i prenosi (imaginaciji, a potom je određuje i zadržava u) umetničkim delima.

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Ključne reči: Gaston Bašlar, Moris Ravel, *Ondina*, element vode, psihologija.

***Ondine* by Maurice Ravel from the viewpoint of Bachelard's essay on water and dreams**

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Theoretical background

The theoretical platform on the basis of which the composition of Maurice Ravel (*Ondine*) will be examined is Bachelard's interpretation and classification of the element of water – provided in the work *Water and Dreams: An Essay on the Imagination of Matter (L'eau et les rêves: Essai sur l'imagination de la matière)*. In this essay, the author provides psychological and psychoanalytical interpretation (of 'poetic images') of the element of water. In other words, he deals in detail with the problematization of the phenomenon of water, *water psyche*, the type of intimacy that suggests the depth of water... That is, the author, through (psycho)analysis of (poetic) 'images' of the element of water, explores and penetrates into the imaginative space (into the unconscious area), he searches for that deep/basic 'image'/mental representation – which triggered (material) imagination and caused the emergence of a certain artwork.

It should also be mentioned that it was a research by Michel Imberty that encouraged me to take this type of theoretical approach. When looking at the musical style from a psychological and psychoanalytic perspective, and specifically in the case of a stylistic analysis of Debussy's *Preludes* for piano, Imberty relied on Bachelard and his interpretation of material imagination given in the already mentioned work *Water and Dreams*. In this regard, I consider that it is very interesting and justifiable to now directly apply the Bachelard's interpretation of the element of

water and material imagination to the work of art (*Ondine*) – which already with its title suggests the element of water.

Aims

On the bases of analytical, comparative and interpretative approaches, it will be discovered with which compositional means Ravel interprets the ‘image’ of *Ondine*. Then, the correspondence with certain (psychological) types of the element of water in essay of Gaston Bachelard will be pointed out. The research will also be directed on revealing the deep/intimate ‘image’, in accordance with the Bachelard’s classification of the element of water, in Ravel’s *Ondine*.

Main Contribution

Looking at Ravel’s *Ondine* from the perspective of Bachelard’s essay on water and dreams will reveal a completely new and specific ‘image’ of Ravel’s composition. It will also reveal one more (possible) way of interpreting and understanding the artistic / music piece.

What is also interesting is to see how and in what way the element of water, with all its metamorphoses and changes in course/flux, allows the permeation and intersection of various ‘disciplines’ such as philosophy, psychology, psychoanalysis, but also music, literature, and (in this case possible) painting.

Implications

The element of water is, in Bachelard’s essay but also in Ravel’s composition, posted as a kind of an archetypal image, and that archetypal image, according to Bachelard, activates material imagination – which then works and operates with the image. This paper seems to imply that, when it comes to the water element as an archetypal image, material imagination produces works that are characterized by quite specific (fluid, vibrant, deceptive) poetic – poetic of the element of water. In other words, it seems that the phenomenon of water has a specific poetic that it provides and transmits (to the imagination, and then it determines and retains it in) the works of art.

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Keywords: Gaston Bachelard, Maurice Ravel, *Ondine*, the element of water, psychology, psychoanalysis.

SIMPOZIJUM 2

Ponovno otkrivanje muzičkog univerzuma *Previda* Kloda Debisija

organizovala Tijana Popović Mladenović

SYMPOSIUM 2

Rediscovering music universe of Claude Debussy's *Préludes*

organized by Tijana Popović Mladenović

Prelidi Kloda Debisija – ideja o delu kao ciklusu i imaginarnoj slikarskoj ‘izložbi’

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Teorijske osnove

U dostupnoj literaturi o Debisijevom opusu pronalaze se različiti pristupi *Prelidima* za klavir. Tako, na primer, Pol Roberts (Paul Roberts) piše o odnosu muzike i vizuelnih umetnosti kako bi ispitao sva moguća tačka povezivanja Debisijeve muzike sa impresionizmom u slikarstvu (Roberts, 1996), Ziglind Brun (Siglind Bruhn) razmatra slike i ideje, kao i vanmuzički podtekst u Debisijevim klavirskim delima, Roj Hauvat (Roy Howat) piše o ruskim uticajima u Debisijevoj klavirskoj muzici, Simon Treziz (Simon Trezise) fokusiran je na Debisijev koncept ‘ritmizovanog vremena’, Bojd Pomeroy (Boyd Pomeroy) na tonalno-strukturalnu raznovrsnost u *Prelidima*, dok Ralf P. Lok (Ralph P. Locke) istražuje egzotična mesta, ljude i načine života u Debisijevim minijaturama i drugim delima za klavir solo (Trezise, 2003). Međutim, nijedan od navedenih autora nije se fokusirao na *Prelide* kao ciklus sa veoma specifičnom muzičkom dramaturgijom, a to je ideja koja će biti muzikološki elaborirana u ovom radu.

Ciljevi

Osnovni cilj ovog rada je da ukaže na integrativne faktore koji proizlaze iz Debisijevih kompozicionih kompozicionih postupaka i kompoziciono-tehničkih rešenja, a koji utiču na percepciju *Prelida* kao integralne, jedinstvene muzičko-dramaturške celine – ciklusa od 24 minijature (Popović Mladenović, 2008). Takođe, vođeni idejom da Debisijevi *Prelidi* predstavljaju sasvim specifičan ciklus, u ovom radu biće ponuđena moguća interpretacija ovih minijatura kao veoma specifično shvaćenih jedinstvenih delova slikarske izložbe koja će otkriti i veze sa estetikama i praksama Vislera (Whistler), Tarnera (Turner), pre-rafaelita (pre-Raphaelites), impresionističkih i postimpresionističkih slikara, slikara simbolista, naročito Redona (Redon), kao i simbolističkih pesnika, među kojima se ističu Mallarme (Mallarmé) i Laforg (Laforgue) (Fulcher, 2001; Rubin & Mattis, 2018).

Glavni doprinos

Glavni doprinos leži u muzikološkoj interpretaciji Debisijevih *Prelida* kao ciklusa i kao imaginarnog slikarske ‘izložbe’ u galerijskom prostoru vođenom *logikom likovnog*.

Implikacije

Iz perspektive dubljeg razumevanja Debisijeve poetike i estetike, kao i njegovog vrlo specifičnog promišljanja o muzici koja se u „svojoj suštini... sastoji od boja i ritmizovanog vremena” (Popović Mladenović, 2008), moglo bi se razumeti u kojoj meri likovni element jeste konstitutivni faktor kompozitorovog opusa, to jest, muzike samih *Prelida*.

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Ključne reči: Klod Debisi, *Prelidi*, delo kao ciklus, *logika likovnog*, zamišljena slikarska izložba.

***Préludes* by Claude Debussy – the idea of the work as a cycle and imaginary paint art ‘exhibition’**

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Background

In the available writings on Debussy’s opus, it is possible to find various perspectives and approaches in focusing on the *Préludes*. Thus, for example, Paul Roberts writes about the relation of music and visual art to examine any possible grounds for relating Debussy to Impressionism (Roberts, 1996), Siglind Bruhn discusses images and ideas, as well as the extra-musical subtext in Debussy’s piano works, Roy Howat writes on Russian imprints in Debussy’s piano music, Simon Trezise focuses on Debussy’s concept of ‘rhythmicised time’, Boyd Pomeroy on tonal-structural diversity in the *Préludes*, while Ralph P. Locke searches for exotic places, peoples, and ways of life in Debussy’s miniatures and other solo piano pieces (Trezise, 2003). However, none of the aforementioned authors focuses on the *Préludes* as a cycle with a very specific musical dramaturgy, and it is an idea, which will be musicologically elaborated through this paper.

Aims

Aim of this paper is to point out to the integrative factors which derive from Debussy’s compositional principles, compositional procedures, and compositional-technical solutions, which affect the integral perception of *Préludes*, i.e. a complete musical-dramatic flow – a cycle of 24 miniatures (Popović Mladenović, 2008). Also, based on the concept of *Préludes* as a cycle, this paper will offer their possible interpretation as a very specifically conceived unique paint art exhibition that would reveal resonating with the aesthetics and practices of Whistler, Turner, pre-Raphaelites, impressionist and postimpressionist painters, the symbolist painters, especially Redon, as well as the symbolist poets, among others, Mallarmé and Laforgue (Fulcher, 2001; Rubin & Mattis, 2018).

Main Contribution

The main contribution lies in the musicological interpretation of Debussy’s *Préludes* as a cycle, as well as an imaginary paint art ‘exhibition’ in gallery space guided by the *logic of pictorial*.

Implications

From perspective of deeper comprehension of Debussy’s poetic and aesthetic but also his very specific thinking through that music “by its very essence...consists of colours and rhythmicized time” (Popović Mladenović, 2008), it could be understood to what extension pictorial element is constituent factor of composer’s opus, that is, music of *Préludes* themselves.

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Key words: Claude Debussy, *Préludes*, work as a cycle, *logic of pictorial*, an imaginary paint art exhibition.

Muzički svet *Prelida* Kloda Debisija kroz objektiv sinestezije

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Teorijske osnove

Prve napomene o sinesteziji (engl. *synesthesia*, od antičkih Grčkih reči *σύν* [*syn*], ‘zajedno’ i *αἴσθησις* [*aisthesis*], ‘osećaji’) moguće je pronaći u napisima antičkih Grčkih filozofa, koji su bili zainteresovani za fenomen međupovezanosti ljudskih čula i takvu percepciju sveta. Prisustvo ovih ideja moguće je prepoznati tokom istorije u promišljanjima naučnika, umetnika, filozofa, koji su naročito bili fascinirani svetlom, bojom i zvukom. Međutim, svoje ozbiljnije teorijsko-naučne eksplikacije sinestezija dobija tek krajem 20. veka i postaje ustanovljena kao neurološki fenomen spajanja/povezanosti čula zahvaljujući američkom neurologu R. Cajtoviku. (Cytowic, 2002, 2018). Pored njegovih istraživanja, u ovom radu integrisane su i teorije psihologa Iglmana (Eagleman), van Kampena (van Campen), Jonea (Ione), Tajlera (Tyler), Robertsona (Robertson), Sagiva (Sagiv), u korespondentnom odnosu sa promišljanjima različitih naučnika i umetnika (Shaw-Miller, 2002; Cavallaro, 2013). Gotovo u svakom istraživanju na ovu temu kao jedan od najzastupljenijih oblika sinestezije pominje se ‘obojeno-slušanje’ (*colored-hearing*) ili ‘hromestezija’ (*chromesthesia*), kada osoba vidi/čuje zvuke u boji, ili *vice versa*.

Ciljevi

Verujući da fenomen sinestezije sadrži ogroman potencijal za interdisciplinarni pristup kroz integrisanje čitave lepeze prethodno pomenutih naučnih i umetničkih istraživanja, cilj ovog rada je ukazivanje na značaj sinestezijskog promišljanja muzikološkim diskursom, usmeravanje pažnje sa teorijskih i naučnih rezultata na njihovu praktičnu primenu u ‘slušanju’, ‘gledanju’ i ‘čitanju’ umetničkog dela.

Glavni doprinos

Glavna ideja u ovom radu jeste isticanje važnosti sinestezije kao posebnog fenomena čije se prisustvo može locirati u periodu *fin de siècle*-a. Fokus će biti na (sinestezijskim) međupovezanostima muzike i vizuelnih umetnosti, to jest, njihovih primarnih označitelja – zvuka i boje, kao i (fenomenološka percepcija) strukture, teksture, harmonije, vremensko-prostornog pokreta. Intencija je da se obezbedi slojeviti doživljaj muzičke/likovne kompozicije/atmosfere, koja će voditi ka ‘unutrašnjem-čulnom’ razumevanju sasvim specifičnog muzičkog sveta *Prelida* Kloda Debisija, razumevanja kroz objektiv sinestezije.

Implikacije

Razumevanje sinestezije omogućava/pomaže nam da ‘posmatramo’ muziku *logikom likovnog*, da ‘slušamo’ sliku u skladu sa muzičkim zakonima i da pronađemo njihove skrivene ili ne-toliko-očigledne međupovezanosti, one koje uglavnom objašnjavamo u terminima metafora. U odnosu na to, ovaj rad otvara psiho-muzikološku diskusiju na temu kako je moguće diferencirati ‘sinestezijsku percepciju’ od ‘sinestezijske metafore’ (Campen: 2007) i kako razumevanje iskustva sinestete pomaže ‘sinhroestetskom’ doživljaju ne-sinestete (Campen, 2007).

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Ključne reči: Klod Debisi, *Preliidi*, sinestezija, *sinestezijska percepcija*, *sinestezijska metafora*, *sinhronestezija*.

Musical world of Claude Debussy's *Préludes* through the lens of synesthesia

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Background

It is possible to find the first interpretations of synesthesia (from the ancient Greek σύν [*syn*], 'together', and αἴσθησις [*aisthesis*], 'sensation'), in the writings of Antique Greek philosophers, who were interested in the interconnection of human senses and their perception of the world. The presence of these ideas can be recognized throughout history in the thoughts of scientists, artists, philosophers, who were especially fascinated with light, color and sound. However, it was not until the end of the 20th century that synesthesia was again scientifically investigated and established as a neurological phenomenon in which the senses commingle, thanks to an American neurologist, R. Cytowic (Cytowic, 2002, 2018) Besides his research, this paper will integrate theories by psychologists Eagleman, van Campen, Ione, Tyler, Robertson, Sagiv, in correspondences with the thoughts of different scientists and artists (Shaw-Miller, 2002; Cavallaro, 2013). Almost every research on the topic of synesthesia refers that one of the most common types of synesthesia is 'colored-hearing' or 'chromesthesia', one in which a person sees or hears sounds in color, or *vice versa*.

Aims

Believing that the phenomenon of synesthesia holds an immense potential for interdisciplinary approach by integrating a wide array of above mentioned scientific and artistic researches, the aim of this paper is to show the importance of synesthesia through a musicological discourse, to move attention from its theoretical and scientific findings to its practical usage in 'hearing', 'seeing', and 'reading' work of art.

Main Contribution

The main objective of this paper is to emphasize the importance of synesthesia phenomenon in artistic practices in the period of *fin de siècle*. The focus will be on the (synesthetic) interconnec-

tions between music and visual arts, i.e. their primary denominators – sound and color, as well as (phenomenological perception of) structure, texture, harmony, time-space movement, etc. The intention is to provide a multi-layered impression of music/painting composition/atmosphere, which will lead to ‘inter-sense’ comprehension of the musical world of Claude Debussy’s *Préludes*, comprehension through the lens of synesthesia.

Implications

Comprehension of synesthesia may help us to ‘see’ music through *logic of pictorial*, to ‘hear’ paintings according to musical laws, and to find their hidden or not-so-obvious interconnections, those that we usually explain in terms of metaphor. In relation to that, this paper opens psychomusicological discussion on how we can differentiate ‘synesthetic perceptions’ from ‘synesthetic metaphors’ (Campen, 2007), and how an understanding of the experience of a synesthete helps ‘synchronesthetic’ experience of non-synesthete (Campen, 2007).

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Keywords: Claude Debussy, *Préludes*, synesthesia, *synesthetic perception*, *synesthetic metaphor*, *synchronesthetic*.

O mogućim neposrednim *Saglasjima* između Uha i Oka u *Prelidima* Kloda Debisija – empirijsko kvalitativno istraživanje

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Teorijske osnove

Principi percepcije i kognicije, u *saglasjima* sa vizuelnim iskustvom i čovekovom sposobnošću da klasifikuje svoje impresije o muzičkom delu u odnosu na slike, praćeni su u svetlu *geštalt* psihologije i fenomenološke estetike, koji percepciju definišu kao proces organizacije i interpretacije čulnih informacija/doživljaja, sa ciljem otkrivanja značenja objekata, fenomena i događaja. U ovom istraživanju korišćen je kvalitativni empirijski metod.

Ciljevi

Cilj u ovom istraživanju je da se ispita postoje li *saglasja* između Uha i Oka, to jest, između muzike Debisijevih *Prelida* i izabranih slika koje pripadaju istom duhovnom prostoru (slikarski impresionizam, postimpresionizam, simbolizam itd). U tom smislu, istraživanjem se analizira percepcija specifičnih komponenta vremenske organizacije, to jest, sasvim specifičnih 'disanja'/'talasa' muzičkog toka (ritam/metar, tempo), boja (melodija, harmonija), faktura, struktura (fragment/integralna celina), atmosfera (dinamika, agogika, artikulacija). Ovi parametri uključeni su u istraživanje kao osnova za procenjivanje veza muzike Debisijevih *Prelida* i likovnih ostvarenja *fin de siècle*-a.

Metod

Istraživanje je sprovedeno na četiri grupe ispitanika ($N = 45$), koje su činili studenti Odseka za muzičku pedagogiju (15), Muzikologiju (5), Džez i popularnu muziku (10) i Odseka za klavir (15).

Merni instrument je upitnik, sačinjen iz tri celine od kojih je svaka podeljena na nekoliko segmenata.

U prvom delu istraživanja – *saglasja* između muzike i slikarstva – od ispitanika se tražilo da donesu odluku o odnosu između 3 prikazane slike i muzičkog segmenta iz jednog prelida. Ovaj segment istraživanja je imao tri grupe u okviru kojih su se menjale slike koje su se prikazivale i prelid čiji se muzički tok slušao. Od ispitanika se tražilo da označe kriterijum, odnosno ponuđene parametre na osnovu kojih su doneli svoj zaključak, nakon što su pogledali slikarske/odslušali muzičke primere dva puta.

U drugom delu – *saglasja* između slikarstva i muzike – ispitanici je trebalo da procene koji od datih segmenata tri različita muzička toka iz tri prelida je u *saglasju* sa (jednom) prikazanom slikom i da označe kriterijum, odnosno parametre na osnovu kojih su doneli takav zaključak, nakon što su pogledali/poslušali primere dva puta.

Treći deo istraživanja – *saglasja* između grupe slika i muzike – ispituje odnos između tri grupe/ 'izložbe' od po tri slike i tri odabrana segmenta muzička toka iz tri različita prelida, a od ispitanika je traženo da navedu kriterijum prema kom su odredili te odnose, nakon što su poslušali/pogledali primere dva puta.

Rezultati

Bez namere da budu ponuđeni univerzalni zaključci, rezultati istraživanja biće interpretirani u odnosu na predloženu analizu Debisijevih *Prelida* kao integralnog muzičko-dramaturškog toka

i imaginarne slikarske 'izložbe'. S tim u vezi, ističe se podatak da su studenti Odseka za klavir i Odseka za džez i popularnu muziku 'jednoglasno' procenili da je Debisijeveva kompozicija *Šta je video zapadni vetar* najviše u *saglasju* sa Tarnerovom slikom *Snežna oluja* (što je u *saglasju* i sa našim predlogom u okviru imaginarne slikarske 'izložbe'). Kao primarne kriterijume na osnovu kojih su doneli takvu odluku istakli su melodiju/harmoniju, dinamiku i artikulaciju/agogiku.

Zaključci

Ciljevi istraživanja tiču se ispitivanja i provere potencijalnih *saglasja* između muzike i slikarstva. Ovako formulisan cilj vođen je predloženom muzikološkom interpretacijom Debisijevih *Prelida* i teorijskom analizom pomenutog odnosa u domenu sinestezija. Tačke ne/preklapanja biće istaknute upoređivanjem rezultata istraživanja i muzikološko-teorijskih zaključaka.

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 Willig, C. (2013). *Introducing Qualitative Research in Psychology*. New York: Open University Press.

Ključne reči: Klod Debisi, *Prelidi*, 'gledati' muziku, 'slušati' sliku, ciklus/izložba, empirijsko-kvalitativno izražavanje.

On possible immediacy of Correspondence between Ear and Eye in Claude Debussy's *Préludes* – empirical-qualitative research

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Background

Principles of perception and cognition, in *correspondence* with visual experience and human ability to classify their own impressions of musical work in relation to paintings, are monitored in light of *Gestalt* psychology and phenomenological aesthetic, which define perception as a process of organization and interpretation of sense information, and with purpose of discovering a meaning of objects, phenomena and events. In this research qualitative empirical method was used.

Aims

Aim of the empirical research is to examine if there are *correspondences* between Ear and Eye, that is, between the music of Debussy's *Préludes* and selected paintings that belong to the same spiritual space (impressionism, post-impressionism, symbolism, etc.) In that sense, research analyses perception of specified components of the temporal organization, i.e. the 'breathing'/'waves' movement of musical flow (rhythm/meter, tempo), color (melody, harmony), texture, structure (fragment/integral whole), atmosphere (dynamics, agogics, articulation). These parameters are included in the research as a default for assessment of music of Debussy's *Préludes* and *fin de siècle's* paintings.

Method

The research was conducted over four groups of respondents ($N = 45$), which were comprised of the first-year students of departments of Music Pedagogy (15), Musicology (5), Jazz and Popular Music (10) and Piano Department (15).

The instrument for data gathering was a questionnaire, consisted of three parts, each of which has several segments.

In first part of the survey – *correspondence* between music and painting – respondent needed to make decision about relationship between three groups of provided paintings and three musical segments, and then select criteria from given parameters (mentioned in Aims) on which he/she based his/her reasoning, after hearing/seeing the examples two times.

In the second part – *correspondence* between painting and music – respondent needed to estimate which of given segments of three different musical flows from three different preludes *corresponds* to one painting, and then select criteria from given parameters on which he/she based his/her reasoning, after hearing/seeing the examples two times.

The third part of the survey – *correspondence* between a group of paintings and music – examines the relationship between three groups/exhibitions, every consists of three paintings and three segments from three different preludes and their musical flows. Respondent needed to mark the criteria used in making decisions for such a relationship, after hearing/seeing the examples two times.

Results

Without the intention to offer universal conclusions, the results of the research will be interpreted in relation to the proposed analysis of Debussy's *Préludes* as an integral musical-dramaturgical flow and imaginary paint-art 'exhibition'. In relation to that, an interesting result is that students of the Piano Department and the Department of Jazz and Popular Music almost 'unanimously' assessed that Debussy's prelude *Ce qu'à vu le vent d'ouest* is in the highest *correspondence* with Turner's painting *Snow Storm – Steam Boat off a Harbor's Mouth*. As the main criteria for making such a decision, they emphasized melody/harmony, dynamics and articulation/agogics.

Conclusions

The research aims to examine potential *correspondence* areas between music and paintings. It is driven by the proposed musicological interpretation of Debussy's *Préludes* and theoretical analysis of the mentioned relationship in the area of synesthesia. Non/overlapping points will be pointed out by crosschecking survey results and musicological-theoretical conclusions.

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Keywords: Claude Debussy, *Préludes*, 'seeing' music, 'hearing' paintings, cycle/exhibition, empirical research.

Poster sesija

Poster Session

Ograničenja muzičara i ne-muzičara u razlikovanju durskih i moltskih akorada

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Teorijske osnove

Sposobnost ispitanika različitih uzrasta, obrazovanja i muzičkih kultura da razlikuju durske i moltske tonalitete, kako tokom slušanja muzičke kompozicije, tako i tokom slušanja izolovanih akorada, veoma retko je ispitivano (Parncutt, 2014). Koje posebne osobine zvuka, osim njegove tonalne strukture, pomažu u razlikovanju durskih i moltskih akorada?

Ciljevi

Cilj istraživanja je bio da se otkriju osobine zvuka koje ograničavaju prepoznavanje izolovanih durskih i moltskih akorada.

Metod

Studija je obuhvatila 29 ispitanika bez prethodnog muzičkog obrazovanja i 14 profesionalnih muzičara. Ispitanicima su izvedena 32 izolovana durska i moltska akorda izgrađena na tonovima A i H iz druge oktave, kao i na tonovima C i D iz treće oktave u trajanju od 3 sekunde. Na primer, durski trozvuk je izgrađen od A5, Cis 6 i E6. Stimuli su podeljeni u 4 grupe (I – sintetisani sinusoidni, bez slabljenja intenziteta – npr. pravougaona amplituda; II – sintetizovani sinusoidni sa linearnim slabljenjem; III – MIDI električni klavir sa odgovarajućim profilom amplituda; IV – pravi zvukovi klavira). Ispitanici su procenjivali zvukove koristeći 35 skala prethodno kreiranog semantičkog diferencijala (Likertove skale): Bez tenzije/Sa tenzijom; Negativno/Pozitivno; Nije srećno/Srećno je; Nije tužno/Tužno je; Nije dursko/Dursko je; Nije moltsko/Moltsko je; Nije milostivo/Milostivo je itd.

Rezultati

Profesionalni muzičari su uspešno završili zadatak bez obzira na vrstu stimulansa. Broj skala na kojima su ispitanici uočili razliku (Vilkokson T kriterijum) između durskih i moltskih akorada bio je: 15 za prvu grupu zvukova; 9 za drugu; 23 za treću; 26 za četvrtu. Ispitanici bez muzičkog obrazovanja nisu uspeli da razlikuju durske i moltske akorde iz prve grupe stimulansa. Broj skala koje su ispitanici koristili bio je: 4 iz druge grupe zvukova; 3 iz treće; 24 iz četvrtu. Za obe grupe ispitanika bilo je lakše da razlikuju durske i moltske akorde iz grupe sa pravim zvukovima klavira.

Zaključci

Podaci pokazuju ograničenja u sposobnostima da se razlikuju durski i moltski akordi od strane ispitanika bez prethodnog muzičkog obrazovanja. Odsustvo profila prirodne amplitude sprečava ih da razlikuju durske i moltske akorde. Štaviše, u slučaju sintetizovanih akorada bez utišavanja, ti ispitanici nisu u mogućnosti da uoče razlike između dva tonaliteta. Rezultati ukazuju na to da profesionalna obuka muzičara omogućava prepoznavanje durskih i moltskih akorada isključivo po svojim tonalnim karakteristikama, nezavisno od promena u intenzitetu.

Reference

Parncutt, R. (2014). The emotional connotations of major versus minor tonality: One or more origins? *Musicae Scientiae*, 18, 324-353.

Ključne reči: muzička percepcija, durski i moltski akordi, emotivna valenca, bazične emocije.

* Dobitnik SEMPRES nagrade.

Limitations of musicians and non-musicians in differentiating between major and minor chords

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Background

The ability of subjects of different age, education, and musical cultures to differentiate between major and minor keys, both while listening to music composition, as well as isolated chords is rarely questioned (Parncutt, 2014). What particular characteristics of sound except for its tonal structure assist in differentiation between major and minor chords?

Aims

The aim of the study was to discover the audial characteristics that are limiting the recognition of isolated major and minor chords.

Method

The study involved 29 participants with no prior musical education and 14 professional musicians. The participants were presented 32 isolated major and minor triad chords of A and B notes in the second octave, as well as C and D notes in the third octave for the duration of 3 seconds. For example, A major triad chord consists of A5, C#6 and E6. The stimuli were divided into 4 groups (I – synthesized sinusoidal with no attenuation of intensity – i.e. rectangular amplitude envelope; II – synthesized sinusoidal with linear attenuation; III – MIDI electric piano with its appropriate amplitude envelope profile; IV – real piano sounds). The subjects evaluated the sounds using 35 scales of the previously created semantic differential (Likert scales): Not tensing/Tensing; Negative/Positive; Not happy/Happy; Not sad/Sad; Not Major/Major; Not Minor/Minor; Not pleading/Pleading etc.

Results

Professional musicians finished the task successfully regardless of the type of stimuli. The number of scales on which the subjects found a difference (Wilcoxon T criterion) between major and minor chords, was 15 for the first group of sounds; 9 for the second; 23 for the third; 26 for the fourth. The participants with no musical education failed to distinguish between major and minor chords from the first group of stimuli. The number of scales used by subjects was 4 in the second group of sounds; 3 in the third one; 24 in the fourth one. For both groups of participants, it was easier to differentiate between major and minor chords in the group of real piano sounds.

Conclusions

The data demonstrates the limitations of the ability to discriminate between major and minor chords in a group of participants with no prior musical education. The absence of the natural amplitude envelope profile prevents them from distinguishing between major and minor chords. Moreover, in the case of synthesized chords without fading, those subjects are unable to perceive differences between the two keys. The results suggest that professional training of musicians allows them to recognize major and minor chords solely by their tonal characteristics, separating them from those of intensity attenuation.

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Parncutt, R. (2014). The emotional connotations of major versus minor tonality: One or more origins? *Musicae Scientiae*, 18, 324-353.

Keywords: music perception, major and minor chords, emotional valence, basic emotions.

* SEMPRES Award participant.

‘Probaj ovo!’

Uticaj verovatnoće akordskih progresija na estetski doživljaj pop pesama

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Teorijske osnove

Inherentna logika akordskih progresija oblikuje naša standardna očekivanja od muzike (Smith & Melara, 1990). S obzirom na to da je svako istraživanje zasnovano na dostupnim informacijama (iskustvu), koje određuju pojedinačni potencijal nadražaja određenom količinom entropije (Berlyne, 1974; DeYoung, 2013) i estetsko vrednovanje, posledično, zavisi od ove relacije. U pogledu kognitivnog toka i dopadanja, primenjeni teorijski pristup objašnjava kako kompleksnost može objasniti varijacije u dopadanju (North & Hargreaves, 2001), te podržava invertovani *U model* preferencija (Chmiel & Schubert, 2017). Inherentna logika akordskih progresija na koju ukazuje statistička analiza hiljade pop pesama je, stoga, odličan alat za operacionalizaciju muzičke entropije.

Ciljevi

Cilj ovog istraživanja je da ispita postoje li korelacije između estetskog doživljaja popularne muzike i verovatnoće određenih harmonskih progresija u okviru nje.

Metod

Komponovano je 15 muzičkih stimulusa, u trajanju od po 11 taktova, 120 otkucaja u minuti. Prvi takt počinje dominantnim septakordom i vodi u osam taktova *korusa*, praćenih dvotaktom *fade-out-a* tonike. Uz tri različita žanra (sa distinktivnom instrumentacijom i ritmom), korus svakog seta stimulusa je definisan progresijom koja se jednom ponavlja, a sastoji se od četiri akorda koji predstavljaju nezavisnu i jedinu varijablu koja se menja. Na primer, harmonski opis stimulusa sa najvećom verovatnoćom bi bio V⁷-I-V-vi-IV-I-V-vi-IV-I-I. Ispitanici ($N = 73$, $M_{\text{uzrast}} = 26.36$, $SD = 10.86$) su rangirali muzičke stimuluse prema estetskom doživljaju istih, kao i prema tome u kojoj meri su im poznati, izazovni, inovativni i komercijalno obećavajući. Ispitanici su takođe upitani za opis ličnosti, popunjavajući kratku Skalu traganja za uzbuđenjem, kao i za otvorenost i ekstravertnost u Inventaru ličnosti.

Rezultati

Nisu pronađene značajne korelacije između preferencija i crta ličnosti. Generalno, prema U-modelu može se uočiti invertirana korelacija između preferencija i očekivanja. Razlike između žanrova mogu se posebno uočiti kod manje očekivane akordske progresije. T-test za EPM (elektronsku plesnu muziku) i pop stimuluse pokazuje značajne, ali male efekte za progresiju treću po očekivanju, a koja je preferirana u pop muzici ($p = .027$), kao i za petu očekivanu progresiju, koja je preferirana u EPM ($p = .037$). Srednji efekat se javlja za progresiju četvrtu po očekivanju, a koja je preferirana u EPM ($p = .001$).

Zaključci

Razlike između parametara sugerišu da zvuk ima veliku ulogu u percepciji harmonije. Preferencija ‘neočekivane progresije’ pre svih ostalih stimulusa u datom dizajnu zvuka, implicira da se u poznatijem zvučnom dizajnu neočekivana harmonija može mnogo više tolerisati. Takođe, moguće

je da je efekat puke izloženosti odgovoran za snažnu preferenciju harmonske progresije koja je druga po očekivanju u setu EPM stimulusa, imajući u vidu da upravo ta kombinacija zvuči veoma slično kao 'letnji hitovi' prisutni u poslednjim godinama.

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- Smith, D. J., & Melara, R. J. (1990). Aesthetic preference and syntactic prototypicality in music: 'Tis the gift to be simple. *Cognition, 34*, 279–298.

Ključne reči: verovatnoća akordskih progresija, harmonija, kognicija, puka izloženost, estetski doživljaj.

‘Take a chance on this!’ The influences of chord progression probability on the aesthetic appreciation of pop songs

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Background

The inherent logic in harmonic progressions shapes our expectation of prototypes (Smith & Melara, 1990). Since exploration behavior is based on accessible information (experience), which determines the individual arousal potential of a stimulus by the amount of entropy (Berlyne, 1974; DeYoung, 2013), aesthetic evaluation depends on this relation, accordingly. In terms of cognitive fluency and liking, this theory resolves how complexity can explain variances in liking (North & Hargreaves, 2001) and supports the inverted-U model of preference (Chmiel & Schubert, 2017). The probability of each harmonic scale-step following another as retrieved by a statistical analysis of thousands of pop songs is, therefore, a great tool to operationalize musical entropy.

Aims

The aim of this study is to investigate the correlations between aesthetic appreciation of popular music and the probability of its functional harmonic progressions.

Method

15 musical stimuli were composed (5 different probabilities in 3 sound settings), each of them containing 11 bars with 120bpm, the first bar introducing the dominant seventh chord and leading into 8 bars of chorus, followed by 2 bars of tonic fade-out. Each chorus was defined by a one-time repeated progression of four chords as the only altered variable. For example, the functional

harmonic description of the stimulus with the highest probability would be V⁷-I-V-vi-IV-I-V-vi-IV-I-I. Participants ($N = 73$, $M_{\text{age}} = 26.36$, $SD = 10.86$) were asked to rate the stimuli according to their aesthetic appreciation as well as i. a. familiarity, complexity and innovativeness. They also were asked to describe their personalities regarding sensation seeking (BSSS) as well as openness and extraversion (TIPI).

Results

There were no general significant correlations between liking and personality traits to be found. In general, an inverted-U correlation could be observed between liking and probability. Differences between the sound settings could be observed for every progression but the most probable one. *T*-tests showed significant, but small effects for the 3rd probable progression, which was preferred in Pop ($p = .027$), and the 5th probable progression, which was preferred in EDM ($p = .037$). A medium effect could be found for the 4th probable progression, which was preferred in EDM ($p = .001$).

Conclusions

The differences between the parameters suggest that sound influences the perception of harmony. The 'unusual progression' being the most preferred one amongst the stimuli with current sound design, suggests that the familiarity of the sound compensates the entropy of the progression, leading to a tolerable arousal potential. Additionally, there could be a mere exposure effect responsible for the strong liking of the 2nd probable progression in the EDM stimulus set since this combination sounded very similar to summer hits in the past years.

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Keywords: the probability of chord progressions, harmony, cognition, mere exposure, aesthetic appreciation.

Model estetskog iskustva umetničke muzike u muzičkim kritikama emitovanim na Drugom programu Radio Beograda tokom 2017. godine*

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Teorijske osnove

Ovo istraživanje je usmereno ka identifikaciji odlika estetskog iskustva i suđenja muzike u kritikama koncerata umetničke muzike koji su tokom 2017. godine izvedeni u Velikoj dvorani Kolarčeve zadužbine, kao reprezentativnoj instituciji umetničke muzike u Srbiji. Identifikacija je sprovedena putem analize uzorka od 39 muzičkih kritika koje su emitovane na Radio Beogradu tokom 2017. godine i objavljene u izdanju *Muzika u odjecima kritike 2017.* (Cvetković, 2018). S obzirom na to da posredujuća funkcija muzičke kritike uslovljava odgovarajuća očekivanja u odnosu na nju – da je bazirana na estetskom doživljaju muzičkog dela, te da će iskazati kompetentne vrednosne sudove o muzičkom delu – istraživačka pitanja glase: da li je, u odnosu na odabrani uzorak, moguće identifikovati postojanje modela estetskog suđenja na kome se zasnivaju vrednosni iskazi o muzičkom delu i kakve su odlike pojedinačnih faza tog modela? Identifikacija odlika estetskog iskustva i suđenja muzike u muzičkim kritikama izvedena je kao ‘testiranje’ postojanja faznog modela estetskog iskustva koji su teorijski postavili Helmut Leder i saradnici (Leder et al., 2004).

Ciljevi

Cilj je da se utvrdi da li se u odabranom uzorku od 39 muzičkih kritika prepoznaje petofazni model estetskog iskustva, te da se izdvoje tipovi jezičkih iskaza kojima je svaka od ovih faza posredovana.

Glavni doprinos

Doprinos ovog istraživanja ogleda se u teorijskom predočavanju odlika sasvim specifičnog estetskog iskustva muzike svojstvenog muzičkim kritikama i to na način identifikacije modela estetskog iskustva i faza od kojih se ovaj model sastoji. U prvoj fazi, perceptivne analize, moguće je identifikovati estetske preference koje privlače pažnju i koje su uslov pozitivne valorizacije izvođenja muzičkog dela: jasnoća, kompaktnost, kompleksnost i kontrasti estetskog stimulusa. Analiza druge faze, implicitne integracije pamćenjem, pokazala je da aktuelizacija prošlih estetskih doživljaja u muzičkim kritikama jeste permanentna i intencionalna. Naredna, faza eksplisitne klasifikacije estetskih informacija iskazana je na dva načina: kao deskriptivno posredovanje muzike kao kretanja i kao ovladavanje celinom muzičkog toka po ugledu na teoriju drame. Analiza je pokazala da četvrta faza ovladavanja kognitivnom celinom estetskog iskustva jeste određena faktorima analize muzičkog dela i drugim značajnim varijablama iz područja ekspertize umetničke muzike. Peta faza estetskog iskustva uslovljena je specifičnim ishodom muzičke kritike – funkcijom svojevrsnog formatiranja estetskih iskustava šire publike.

* Ovo istraživanje je rezultat rada na projektu *Identiteti srpske muzike u svetskom kulturnom kontekstu*, koji podržava Ministarstvo prosvete, nauke i tehnološkog razvoja Republike Srbije.

Implikacije

‘Testiranje’ teorijskog modela estetskog suđenja vizuelnih umetnosti na verbalizovanom estetskom iskustvu umetničke muzike predstavlja pokušaj da se pronađe teorijski model posredstvom koga bi se ukazalo na bitne odlike muzičke kritike kao specifičnog posredovanja muzike, koje egzistira izvan područja disciplinarno utemeljenih nauka o muzici i filozofije muzike. Izvedeni ‘test’, stoga, implicira jednu potencijalnu perspektivu i metodološki okvir za kompleksno istraživanje muzičke kritike umetničke muzike u širem dijahronijskom, istorijskom luku.

Reference

Leder, H. et al. (2004). A model of aesthetic appreciation and aesthetic judgments. *British Journal of Psychology*, 95, 489-508.

Cvetković, S. (Ed.) (2018). *Muzika u odjecima kritike 2017*. Beograd: Zadužbina Illije Milosavljevića Kolarca.

Ključne reči: petofazni model estetskog iskustva, ekspertiza, muzička kritika, estetske varijable, ekspertske varijable.

Model of the artistic music aesthetic experience in music criticism broadcasted on the Radio Belgrade 2 in 2017*

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Background

This research focuses on identifying the features of aesthetic experience and musical judgments in the music criticism of artistic music concerts that were performed during 2017 in the *Kolarac Great Hall* as a representative institution of artistic music in Serbia. The identification is carried out through the analysis of 39 examples of music criticism that were broadcasted on the Radio Belgrade 2 in 2017 and published in collection *Muzika u odjecima kritike 2017 (Music in the echoes of criticism, Cvetković, 2018)*. Given that the mediating function of music criticism determines the appropriate expectations in relation to it – that it is based on the aesthetic experience of a music performance and that it contains competent judgments about the performance – the research questions here are: is it possible to identify the existence of a model of aesthetic experience of artistic music in 39 selected examples of music criticism and what are the features of that model? Identification of the features of aesthetic experience and musical judgments in the music criticism is made in the form of ‘testing’ of the five-stage model of aesthetic experience that has been set up by Helmut Leder and co-authors (Leder et al., 2004).

Aims

The aim is to determine whether the five-stage model of aesthetic experience is presented in 39 selected examples of music criticism and to determine the types of statements through which each stage is mediated.

* This research was carried out as part of the scientific project *Identiteti srpske muzike u svetskom kulturnom kontekstu [Identities of Serbian Music in the World Cultural Context]*, supported by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

Main Contribution

The main contribution consists of the theoretical explication of the features of a very specific aesthetic experience of music inherent to music criticisms, in the way of identifying the model of aesthetic experience and its stages. In the first stage of perceptual analysis, it is possible to catch the aesthetic preferences that attracted the attention and are important for the positive judgments about work of music performance: clarity, coherence, complexity, and contrasts of the aesthetic stimuli. The analysis of the second stage implicit memory integration has shown that the actualization of past aesthetic experiences of music is permanent and intentional. The next stage of explicit classification is present in two ways: as a descriptive mediation of music as sound movements and as the mastering of a music flow based on a model of drama theory. The fourth stage of aesthetic experience cognitive mastering is defined by factors of music analysis and by other significant variables from the field of expertise of artistic music. The last stage of aesthetic experience is conditioned by the specific output of music criticism in the direction of formatting of the wider audience aesthetic experience.

Implications

The 'testing' of the theoretical five-stage model of aesthetic experience of visual arts on the verbalized aesthetic experience of music reflects an endeavor to find a suitable theoretical model for discussing the features of music criticism as a very specific type of mediation of music that exists outside of the disciplinary established fields of sciences and philosophy of music. Therefore, this 'test' implies a potential research perspective and a methodological framework for a complex study of artistic music criticism history in a broader diachronic frame.

References

- Leder, H. et al. (2004). A model of aesthetic appreciation and aesthetic judgments. *British Journal of Psychology*, 95, 489-508.
- Cvetković, S. (Ed.) (2018). *Muzika u odjecima kritike 2017*. Beograd: Zadužbina Illije Milosavljevića Kolarca.

Keywords: the five-stage model of aesthetic experience, expertise, music criticism, aesthetic variables, expert variables.

Slušanje muzike i promenljivost otkucaja srca*

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Teorijske osnove

Slušanje muzike je složen fenomen, koji uključuje psihološke, emocionalne i fiziološke reakcije. Poslednje navedeno se može posmatrati praćenjem promena u neurološkoj, kardiovaskularnoj i respiratornoj funkciji (Orem & Trotter, 1994). Slušanje muzike menja funkciju autonomnog nervnog sistema (ANS) promenom odnosa aktivnosti između simpatičkog i parasimpatičkog sistema. Promenljivost srčane frekvencije (PSF) – promene u međuotkucajnim intervalima – je pouzdana mera ANS aktivnosti, koja je povezana sa prognozom u različitim kliničkim slučajevima. Prethodne studije o fiziološkim efektima različitih muzičkih žanrova pokazuju da tempo utiče na uzbuđenje, dok dur/mol tonalitet utiče na raspoloženje (Husain, Forde Thompson, & Schellenberg, 2002). Međutim, ne postoje opšta uputstva za slušanje muzike u kliničkim uslovima, jer se istraživanja razlikuju po muzičkim protokolima i nalazima, pa su potrebne dodatne studije.

Ciljevi

Naš cilj je da putem merenja PSF-a doprinesemo uvidu u efekte muzike na promenu ANS-a. Pokušali smo da procenimo slušanje muzike kao jednostavnu ne-farmakološku metodu koja se može koristiti kako bi se uticalo na psihofiziološko stanje slušalaca.

Metod

Dvadeset i četiri zdrava dobrovoljca, starosti od 18 do 45 godina bila su izložena slušanju muzike preko slušalica u ležećem položaju u jutarnjim satima između 7 i 12 časova. PSF je meren preko EKG (Biopac MP35), sa elektrodama pričvršćenim na grudi dobrovoljaca. Zabeleženi su međuotkucajni intervali i PSF je analiziran sa paketom RHRV (paket za analizu PSF dobijenih EKG-om) u statističkom programskom jeziku R (García Martínez et al., 2017). Zabeležene su muzičke preferencije, muzičko obrazovanje i iskustvo kao i osećanja prijatnosti ili neprijatnosti. Svaki učesnik je zabeležen sa tri zapisnika: prethodno izabrana muzika koja se sastoji od 4 različita žanra (jedna kompozicija po žanru, uravnotežen red) koji obično pokazuju najkorisnije efekte na blagostanje (klasičarska muzika, barokna muzika, gregorijanski napevi i ambijentalna muzika), izabrana muzika svakog učesnika i kontrola bez muzike. Oba muzička protokola su se sastojala od 10 minuta tihog odmora, 4 puta po 5 minuta muzičkog komada odvojenog pauzom od 30 sekundi i 10 minuta tihog odmora na kraju. Kontrola bez muzičkog podsticaja imala je istu ukupnu dužinu.

* Ovaj rad su sufinansirali Republika Slovenija i Evropska unija iz Evropskog socijalnog fonda.

Rezultati

Preliminarni rezultati ovog istraživanja ukazuju da slušanje muzike aktivira ANS. Razlike u PFS parametrima (RMSSD i HF) kao merilo vagalnog tona će biti razmotreni.

Zaključci

Naše istraživanje će obogatiti znanje o efektima svakodnevnog slušanja muzike na autonomne promene i doprineti metodološkim preporukama za merenje PSF-a. U budućnosti, protokoli u kliničkim uslovima mogu se istražiti.

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Ključne reči: slušanje muzike, muzički žanr, promenljivost otkucaja srca, autonomni nervni sistem.

Music listening and heart rate variability*

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Background

Listening to music is a complex phenomenon, involving psychological, emotional, and physiological responses. The latter could be observed by monitoring changes in neurological, cardiovascular and respiratory function (Orem & Trotter, 1994). Music listening modulates the function of the autonomic nervous system (ANS) by changing the relationship between sympathetic and parasympathetic system activity. Heart rate variability (HRV), the variation in the inter-beat intervals, is a reliable measure of ANS activity, that is related to prognosis in different clinical cases. Previous studies of the physiological effects of different music genres show that tempo affects the arousal, whereas major/minor mode affects mood (Husain, Forde Thompson, & Schellenberg, 2002). However, there are no general guidelines for music listening in clinical settings, as the studies vary in musical protocols and findings, therefore additional studies are needed.

* This work was co-funded by Republic of Slovenia and European Union from the European Social Fund.

Aims

Our aim is to contribute insights about the effects of music on the modulation of the ANS via measurement of HRV. We tried to evaluate music listening as a simple non-pharmacological method that can be used in order to influence the listener's psychophysiological state.

Method

Twenty four healthy volunteers aged from 18 to 45 were exposed to music listening via headphones in the supine position in the morning hours between 7 am and 12 am. HRV was measured via ECG (Biopac MP35), with electrodes attached to the volunteers' chest. Inter-beat intervals were recorded and HRV was analyzed with package RHRV (Heart Rate Variability Analysis of ECG Data) in statistical programming language R (García Martínez et al., 2017). Musical preferences, musical background and feelings of pleasantest or unpleasantness were also recorded. Each participant was recorded with three protocols: preselected music comprising of 4 different genres (one composition per genre, counterbalanced order) that usually show the most beneficial effects on well-being (classical music, baroque music, Gregorian chants and ambiental music), self-selected music by each participant and control without music. Both musical protocols consisted of 10 minutes of quiet rest, four times of 5 minutes musical piece listening, separated by 30 seconds pause and 10 minutes of quiet rest in the end. Control without musical stimuli had the same overall length.

Results

Preliminary results of this ongoing study indicate that music listening activates ANS. Differences in HRV parameters (RMSSD and HF) as measures of vagal tone will be discussed.

Conclusions

Our study will enrich knowledge about the effects of daily music listening on the autonomic modulation as well as contribute to the methodological recommendations for HRV measurements. In the future, protocols in clinical settings can be explored.

References

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Keywords: music listening, music genre, heart rate variability, autonomic nervous system.

Odsustvo povezanosti između muzičkih sposobnosti i prekursora čitanja kod dece u prvom razredu osnovne škole

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Teorijske osnove

Još uvek se raspravlja o potencijalu muzičkog obrazovanja da poboljša sposobnost čitanja kod dece. Meta-analize su otkrile da su nalazi o povezanosti muzičkih sposobnosti i prekursora čitanja nedosledni i pokazale da postoji povezanost između dva domena, ili samo povezanost unutar domena (Butzlaff, 2000; Bolduc, 2008). Kako su ranija istraživanja retko ispitivala promene koje se tokom muzičkog obrazovanja javljaju u ovim odnosima, potrebno je dalje istražiti vezu između razvoja jezika i uključenosti u muzičke aktivnosti, u školskom kontekstu.

Ciljevi

Prevladavajuća svrha ove studije bila je istraživanje povezanosti muzičkih sposobnosti i prekursora čitanja u odeljenjima prvog razreda osnovnih škola, koja imaju različite muzičke kurikulume. Štaviše, cilj nam je bio da ispitamo promene u jačini veze između muzičkih i sposobnosti povezanih sa jezikom, tokom prve godine školovanja.

Metod

Tokom jesenjeg i prolećnog polugodišta ispitano je 88 učenika iz četiri odeljenja prvog razreda osnovne škole (*prosečan uzrast* = 6 godina i 11 meseci, *SD* = 4 meseca). Dva odeljenja, od kojih je kurikulum jednog uključivao intenzivno bavljenje muzikom, a kurikulum drugog bavljenje matematikom, imala su časove muzike koji su uključivali vođene pokrete. Tokom časova koje je imalo još jedno odeljenje ohrabrivani su pokreti improvizovanja. Dalje, uključili smo i kontrolno odeljenje koje je imalo tradicionalni muzički kurikulum, zasnovan na Kodalji metodi.

Kako bismo merili prekursore čitanja, zadali smo Test izostavljanja fonema i Test brzog automatizovanog imenovanja (eng. Rapid Automated Naming; RAN). Kako bismo ispitali radnu memoriju i kognitivnu fleksibilnost koristili smo Test verbalne fluentnosti. Verbalno znanje procenjivali smo koristeći subtest Rečnik iz WISC-IV baterije testova. Primenili smo online test muzičke percepcije kako bismo procenili diskriminaciju visine, melodije, ritma, tempa i harmonije, kao i veštine vizuelnog uparivanja. Senzomotorno usklađivanje mereno je zadatkom toka kucanja tasterom i zadatkom produženog kucanja tasterom, u situacijama merenja održavanja pažnje posle završenog prethodnog zadatka.

Rezultati

U osnovi, posmatrajući muzičke i lingvističke sposobnosti nismo pronašli značajnu povezanost između ovih domena. Ipak, rezultati su pokazali pozitivnu povezanost između pojedinih muzičkih sposobnosti i lingvističkih veština. Pri poređenju odeljenja, jačina značajnih povezanosti koju smo pronašli u jednom odeljenju nije se značajno razlikovala od onih koje u drugom odeljenju nisu dostigle nivo značajnosti. Na kraju školske godine, ukazale su se iste povezanosti

unutar domena. Dalje, Test izostavljanja fonema i Produženo kucanje tasterom bili su povezani sa Vizualnim uparivanjem i Razlikovanjem melodija u odeljenjima koja su imala časove direktnog i improvizovanog usmeravanja pokreta. Ipak, ove korelacije nisu ostale značajne nakon primene Benjamini-Hochberg korekcije. Nismo pronašli značajnu razliku u jačini korelacija koje su se pojavile u dve faze testiranja.

Zaključci

Naši rezultati su pokazali da muzička percepcija i senzomotorno usklađivanje nisu povezani sa prekursorima čitanja. Nadalje, tokom šestomesečnog perioda, časovi muzike nisu mogli ojačati vezu između muzičkih i lingvističkih sposobnosti. Pretpostavljamo da formalno muzičko obrazovanje, u školskom okruženju, tokom dužeg perioda, može podržati pojavu povezanosti između domena.

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Ključne reči: muzičko obrazovanje, muzička percepcija, usklađivanje, fonološka svesnost, brzo imenovanje.

Absence of associations between musical abilities and precursors of reading in first-grade children

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Background

The potential of music education to improve children's literacy abilities is still under debate. Meta-analyses revealed that the findings on the relationship between musical abilities and precursors of reading are inconsistent showing associations between the two domains or only within-domain associations (Butzlaff, 2000; Bolduc, 2008). As previous studies have rarely investigated the changes in these associations during music education, the link between language development and participating in musical activities in the school context needs further investigation.

Aims

Our main purpose was to investigate the associations between musical abilities and the precursors of reading in first-grade classes with different music curricula. Moreover, we aimed at exploring the changes in the strength of the relationship between musical and language-related abilities over the course of the first school year.

Method

Eighty-eight first-grade students (*mean age* = 6 years 11 months, *SD* = 4 months) from four classes were tested in the fall and the spring school term. Two classes, one with an intensive music curriculum and one with a mathematics curriculum, received music lessons employing directed movement. Another class was provided music lessons encouraging improvised movement during music lessons. Further, we recruited a control class with the traditional music curriculum based on the Kodály method.

We administered Phoneme Deletion and Rapid Automatized Naming (RAN) to measure the precursors of reading. Verbal Fluency was used to test working memory and cognitive flexibility. We measured verbal knowledge using the Vocabulary subtest from WISC-IV. An online music perception test was applied to measure pitch, melody, rhythm, tempo, and harmony discrimination as well as visual connection skills. Sensorimotor entrainment was measured by a paced tapping and a continuation tapping task.

Results

At baseline, we found no significant cross-domain relations among musical and linguistic abilities. However, results revealed positive associations between certain musical abilities and linguistic skills. Comparing the classes, the strength of significant associations found in one class did not differ significantly from those which did not reach significance in another class. At the end of the school year, the same within-domain associations emerged. Further, Phoneme Deletion and Continuation Tapping were related to Visual Connection and Melody Discrimination in the Directed Movement music class and in the Improvised Movement class. However, these correlations did not remain significant after the Benjamini-Hochberg correction was applied. We found no significant difference in the strength of correlations emerged in the two testing phases.

Conclusions

Our results demonstrated that music perception and sensorimotor entrainment were not related to the precursors of reading. Furthermore, music lessons could not strengthen the associations between the musical and linguistic abilities over the course of six months. We propose that music education in the school environment might support the emergence of cross-domain associations over a longer period.

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Keywords: music education, music perception, entrainment, phonological awareness, rapid naming.

Efekti muzičke enkulturacije na razvoj podveština muzičkog izvođenja

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Teorijske osnove

U Holandiji, muzičko obrazovanje u osnovnim školama odlikuje se snažnim naglaskom na grupnom pevanju pesmica sa već snimljenim izvođenjima (pevanja i/ili sviranja, prim. prev.) najčešće sa i popularnih, poznatih melodija, ostavljajući malo prostora za veštine muzičkog izvođenja poput pevanja po sluhu i pevanja iz memorije. Odabir i davanje prioriteta muzičkim karakteristikama kako bi se razvio muzički kurikulum za decu u osnovnim školama trebalo bi da uključuje istraživanje mogućih efekata latentnog kognitivnog procesa muzičke enkulturacije na tonalne kompetencije. Muzička enkulturacija je prirodni razvoj muzičkih shema kroz oblikovanje uticaja sredine, koja se javlja u ranom periodu života (Corrigall & Trainor, 2014). U ovoj studiji, fokus je na deci od 6 do 12 godina, jer ta grupa ima različite nivoe enkulturacije (Nichols, 2016).

Ciljevi

Ovaj projekat određuje da li nivoi muzičke enkulturacije (operacionalizovani kao implicitne i eksplicitne tonalne kompetencije) utiču na bolje pevanje po sluhu i iz memorije kod dece koja idu u osnovnu školu. Osim toga, ovaj projekat pruža znanje o tome kako se razvija muzička enkulturacija i koja je njena korisnost u poboljšanju kvaliteta muzičkog obrazovanja.

Metode

Podaci su prikupljeni na uzorku od 236 učenika osnovne škole, uzrasta od 6 do 12 godina. Razvijena su dva merna instrumenta zarad procene percepcije i produkcije muzičkih parametara kao što su visina, tempo, intervali, tonalitet, skale i tembr. Zadaci koji uključuju percepciju muzičkih karakteristika definisali su nivo enkulturacije, dok su zadaci koji se odnose na produkciju muzike definisali nivo pevanja po sluhu i iz memorije. Sprovedeni su holandski državni ispiti iz čitanja, matematike i gramatike zarad merenja opštih nivoa kognitivnog razvoja.

Rezultati

Preliminarni opšti rezultati ukazuju na to da su najbolji prediktori nivoa enkulturacije starost, vrsta obrazovanja, pol i uključenost u individualno instrumentalno muzičko obrazovanje. Nivoi enkulturacije su značajno niži u uzrastu od 6 i 7 godina u poređenju sa uzrastom od 8 do 12 godina, a devojčice nadmašuju dečake u uzrastu od 9 do 11 godina. Pevanje po sluhu i iz memorije se može najbolje predvideti pomoću nivoa enkulturacije i pola. Nivoi muzičkog izvođenja su značajno niži kod učenika 1. i 2. razreda u poređenju sa 5. i 6. razredom i devojčice su naprednije od dečaka u uzrastu od 9 i 11 godina. Specifični rezultati ukazuju na to da 25% učenika ispravno peva durske skale. Pored toga, devojčice nadmašuju dečake u zadacima muzičke memorije, a 5. i 6. razred je bolji od 1. i 2. u percepciji intonacije. Devojčice bolje pevaju melodijske intervale od dečaka. Iznenađujuće je što uzrast nema efekta u pevanju melodijskih intervala, a veći intervali se izvode tačnije od manjih. Nivoi kognitivnog razvoja ne predviđaju nivoe enkulturacije ili muzičkog izvođenja.

Zaključci

Nivo muzičke enkulturacije jeste umereni prediktor pevanja po sluhu i iz memorije. U najmanju ruku, uzrast i pol mogu u velikoj meri da odrede strukturu i sadržaj muzičkog kurikulumu za učenike osnovne škole, na svim nivoima kognitivnog razvoja.

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Ključne reči: muzičke podveštine, izvođenje, inkulturacija, tonalne kompetencije, kognitivni razvoj, osnovna škola.

Effects of musical enculturation on the development of subskills of musical performance

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Background

In the Netherlands, music education in primary schools is characterized by a strong emphasis on performing sing-along songs and popular, well-known melodies, leaving subskills of musical performance such as singing by ear and singing from memory underexposed. Selecting and prioritizing musical features in order to develop a skill-based music curriculum for primary school children should include exploration of possible effects from the latent cognitive process of musical enculturation on tonal competencies. Musical enculturation is the natural development of music schemata through the shaping influences of the environment, which occurs from a young age (Corrigall & Trainor, 2014). This study focuses on children aged between 6 and 12, as this group has varying enculturation levels (Nichols, 2016).

Aims

This project determines whether musical enculturation levels (operationalized as implicit and explicit tonal competencies) yield better singing by ear and singing from memory for primary school children. Furthermore, this project delivers knowledge on how musical enculturation develops and its utility in improving music education quality.

Method

Data were collected among 236 primary school children aged 6 to 12. Two measurement instruments were developed to assess perception and production of musical features such as pitch, timing, intervals, tonality, scales, and timbre. Tasks involving the perception of musical features defined the enculturation level, whereas tasks involving production of music defined the level of singing by ear and singing from memory. Dutch state exams for reading comprehension, math, and grammar were conducted to measure general levels of cognitive development.

Results

Preliminary general results suggest that the enculturation level is best predicted by age, education type, gender, and whether children engage in individual instrumental music education. Enculturation levels are significantly lower at ages 6-7 compared to 8-12, girls outperforming boys at ages 9 and 11. Singing by ear and singing from memory are best predicted by enculturation level and gender. Musical performance levels are significantly lower for 1st and 2nd graders compared to 5th and 6th graders, girls outperforming boys at ages 9 and 11. Specific results suggest that singing major scales is performed correctly by 25% of students. Furthermore, on average girls outperform boys on musical memory tasks, and 5th and 6th graders outperform 1st and 2nd graders on perceiving intonation. Girls outperform boys in singing melodic intervals. Surprisingly, there is no effect from age on singing melodic intervals, and large intervals are performed significantly more correct than small intervals. Cognitive development levels do not predict levels of enculturation or musical performance.

Conclusions

Musical enculturation level is a moderate predictor of singing by ear and singing from memory. At least age and gender could determine to a large extent the structure and content of the music curriculum for primary school children at all levels of cognitive development.

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Keywords: music subskills, performance, enculturation, tonal competencies, cognitive development, primary school.

‘Molim, ne prekidajte moj *flow*!’ Kontra *flow* u podučavanju klavira

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Teorijske osnove

Kao što se *flow* stanje može dostići tokom sviranja klavira, moguće je iskusiti i njegovu potpunu suprotnost. Dok se stanje *flow* odlikuje visokim nivoom motivacije, sa posvećenošću i zadovoljstvom (Csikszentmihalyi, 1990), mogu se iskusiti i momenti velikog obeshrabrenja kada je entuzijizam praktično nepostojeći i kada nivo frustracije dovodi pijanistu do napuštanja studija i profesionalne karijere. Ovaj obrnuti tok, nazvan ‘kontra *flow*’ je potencijalno destruktivno mentalno stanje koje služi kao temelj za pojavu mnogostrukih negativnih faktora, unutrašnjih ili spoljašnjih (Bezerra, 2016). Kontra *flow* sprečava dostizanje *flow* stanja i iskustva (Maslow, 1971) na taj način pričinjavajući štetu muzičkom učenju.

Ciljevi

1. Identifikovati moguće situacije koje mogu da dovedu do prekida *flow* stanja tokom procesa učenja klavira i do pojave stanja koje nazivamo kontra *flow*;
2. Proveriti intenzitet kontra *flow* stanja služeći se, pri analizi, analogijom sa indikatorima *flow* stanja.

Metod

Izabrana su 4 studenta Državnog univerziteta Svete Katarine u Brazilu, od kojih su 3 žene i 1 muškarac, uzrasta od 18 do 39 godina. Postavljeno im je sledeće pitanje: “Predstavite situacije povezane sa vašim časovima klavira, koja su za vas onemogućile ili prekinule vaše *flow* stanje”.

Rezultati

Nakon analize sadržaja odgovora učesnika identifikovano je 5 glavnih faktora vezanih za neprikladne stavove nastavnika i to ovim redosledom: izostanak, nedostatak prioriteta, diskvalifikacija, prekid, loše navike ponašanja. Faktori stanja kontra *flow* su klasifikovani u kategorije kreirane na osnovu indikatora *flow* stanja. U klasifikaciji podataka identifikovane su sledeće situacije usled kojih dolazi do pojave stanja kontra *flow*:

1. Izostanak: utiče na *flow* u pogledu jasnih ciljeva, izmenjenog vremena i gubljenja ega. Studenti su ovo smatrali za glavni razlog pojave stanja kontra *flow* tokom učenja klavira;
2. Nedostatak prioriteta: utiče na *flow* u pogledu jasnih ciljeva, povratnog odgovora, balansa između sposobnosti i izazova, fokusiranja na sadašnjost i gubitka ega;
3. Diskvalifikacija: utiče na *flow* u pogledu povratne informacije, balansa između izazova i mogućnosti, izmenjenog vremena, gubitka ega;
4. Prekid: utiče na *flow* u pogledu duboke koncentracije, fokusiranja na sadašnjost, osećaja izmenjenog vremena i gubitka ega;
5. Loše navike ponašanja: utiče na *flow* u pogledu fokusiranja na sadašnjoj, izmenjenog vremena i gubitka ega.

Zaključci

Ova studija je pokazala da stavovi, navike i neuljudnost profesora utiču na prekid stanja *flow*, te dovode do pojave stanja kontra *flow*. Ističemo važnost metakognitivnih veština kako profesora tako i studenata u cilju izbegavanja štetnih projekcija i postizanja efikasnog vežbanja tokom podučavanja-učenja klavira.

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Ključne reči: *flow* stanje, kontra *flow* stanje, metakognicija, klavir.

‘Please, do not cut my flow!’ The counter-flow in piano teaching

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Background

Just as the state of flow can occur during piano action, the same can happen in a reverse manner. As the flow state is a situation of high-level motivation, with involvement and pleasure (Csikszentmihalyi, 1990), you can experience moments of great discouragement, when the enthusiasm is virtually nonexistent, reaching a level of frustration that can lead the pianist to abandon their studies and professional career. This reverse flow condition, called ‘counterflow’, is a potentially destructive mental state that serves as a substrate for the appearance of multiple negative factors of intrinsic and extrinsic order (Bezerra, 2016). The counterflow prevents flow state and peak experience (Maslow, 1971), harming musical learning.

Aims

1. Identify possible situations when cutting in the flow state may occur, which we call ‘counterflow’, during the piano teaching process.
2. Check to what extent counterflow state occurs by using an analogy with flow indicators for the analysis.

Method

Four bachelor’s degree piano students were selected in Santa Catarina State University, Brazil (Udesc). Three male students and one female aged between 18 and 39 years. The following question was asked: “Name situations related to your piano lesson that for you, inhibit or disrupt your flow state.” A content analysis was applied to the responses obtained (Bardin, 2010).

Results

From the content of student responses analysis, emerged 5 main factors related to the piano teacher inappropriate attitudes, in this order: omission, lack of priority, disqualification, interruption, bad habits of conduct. The counterflow state factors were classified into categories created on the basis of flow indicators. In the classification of the data, we found the following situations of counterflow state, in descending order of occurrence:

1. Omission: affects the flow of clear goals, a sense of altered time and loss of ego, is considered by students as the major cause of counterflow in the piano lesson;

2. Lack of priority: affects the flow of clear goals, immediate feedback, the balance between challenge and ability, focus on the present and loss of ego;
3. Disqualification: affects the feedback, balance between challenge and ability, sense of altered time, ego loss;
4. Disruption: affects the flow in deep concentration, focus on the present, a sense of altered time, loss ego;
5. Bad habits of conduct: affects the flow in focus at present, altered sense of time, ego loss.

Conclusions

The study showed that attitudes, habits and teachers' incivility contribute to interruption of the flow state of students and lead to counterflow state. We pointed out the importance of metacognitive skills to both teacher and student, in order to avoid harmful projections that can influence the efficient and sound exercise of the teaching-learning piano.

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Keywords: flow state, counterflow, metacognition, piano.

Upotreba muzičke tehnologije u procesu podrške razvoju darovitog deteta u domenu komponovanja – studija slučaja

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Teorijske osnove

Pokazano je da muzika deci pruža multičulno iskustvo, što im omogućava unapređenje razvoja egzekutivnih funkcija i emocionalnog sazrevanja, kao i da muzička tehnologija može uticati na način učenja i produktivnost deteta u početnom stadijumu muzičkog razvoja (Adessi, et al., 2017; Dumont et al., 2017). Darovitost u domenu stvaranja muzike nije česta pojava u predškolskom uzrastu, ali je brzina dosezanja pojedinih stadijuma individualna i određena kako unutrašnjim, tako i spoljašnjim činiocima muzičkog razvoja (Bogunović, 2010; Radoš, 2010).

Ciljevi

Namera je bila da se ustanove veštine kojima vlada dete darovito u domenu komponovanja na predškolskom uzrastu; da se ustanovi da li podučavanje muzike kroz kompoziciju omogućava praktično usvajanje znanja; te i u kojoj meri muzička tehnologija utiče na produktivnost darovitog deteta.

Metod

Rad predstavlja kvalitativno istraživanje, paralelno sa edukacijom i podrškom razvoju talenta. Šestogodišnji dečak, M. Ž, iz porodice visoko obrazovanih roditelja, zbog uočenog talenta započinje pohađanje časova klavira u muzičkoj školi u uzrastu od četiri godine. Podučavanje u oblasti kompozicije traje od 2018. godine. Dečak se služi aplikacijama za ovladavanje teorijom muzike i muzičkim softverima Ensemble Composer, Muse Score i Midi Sheet Music, na kojima je započeo komponovanje uz podršku roditelja. Nastavni proces je pismeno dokumentovan i obuhvata tri oblasti: modifikovanje postojećih kompozicija; analiza dela kroz video-partiture; unapređenje percepcije muzičkih parametara i forme kroz niz teorijskih zadataka. Časovi su se odvijali jednom nedeljno u trajanju od 45-90 minuta.

Rezultati

- Dečak je u početku stvarao isključivo za klavir. Posle 4 meseca u partituru uvodi udaraljke, a posle 7 meseci piše za klavir i gudačke instrumente.
- Estetsko sazrevanje dečaka se odrazilo kroz korišćenje novih lestvica, deskriptivnih naslova kompozicija i verbalizovanje želje da kod slušalaca izazove određenu emocionalnu reakciju.
- Prednost rada na muzičkim softverima je povratna informacija putem reprodukcije zvuka i mogućnost brzog zapisivanja notnog teksta.
- Muzički softveri nisu značajno uticali na razvijanje melodijske linije, ali u velikoj meri utiču na izbor metra i ograničavaju upotrebu različitih ritmičkih obrazaca, što je uticalo na smanjenje motivacije za unapređenje kompozicija;
- U periodu od 6 meseci primećen je veći stepen razumevanja pravila notacije, čime se smanjio broj grešaka u zapisu partiture, prethodno prisutnih u radu na muzičkim programima.

Zaključci

Dete u predškolskom uzrastu uspešno komponuje koristeći jednostavnije forme pesme i homofonu fakturu. Početni impuls za komponovanjem je često vezan za vanmuzičku tematiku. Unapred

određeni obrasci muzičkih softvera mogu da ograniče produktivnost i redukuju upotrebu određenih muzičkih komponenti, što potencijalno uzrokuje pad motivacije. Ova ograničenja je moguće nadomestiti uvođenjem tradicionalnih metoda notografije. Kroz nastavu kompozicije dečak praktično primenjuje usvojeno teorijsko znanje i pokazuje želju za unapređenjem postojećih kompozicija.

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Ključne reči: kompozicija, deca, darovitost, muzička tehnologija.

Using music technology as a tool in supporting the gifted child development in the domain of composing – the case study

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Background

It has been shown that music provides children with a multisensory experience, which enables them to improve their executive functions and emotional maturation, and that music technology can influence the processes of learning and children's productivity (Adessi, et al., 2017; Dumont et al., 2017). Giftedness in the domain of music creation is not frequent at the pre-school age, but the speed of reaching particular stages and the way of going through them is individual and determined by both internal and external factors of musical development (Bogunović, 2010; Radoš, 2010).

Aims

The aim was to determine the skills which a child gifted for composing has mastered at a pre-school age; to determine whether music instruction through composition ensures a practical acquisition of knowledge; and the extent to which music technology affects the productivity of a gifted child.

Method

The paper presents qualitative research using a follow-up method, simultaneously with education and support of talent development. A six-year-old boy, M.Ž, from a family of highly educated parents, began his music education due to his talent. He has been taking piano in music school since the age of four. His instruction in the field of composition started in 2018. He uses music software: Ensemble Composer, Muse Score and Midi Sheet Music, which he started composing with, under supervision and incentive of his parents. The teaching process is documented

in writing and involves three areas: playing and modifying the existing compositions; analyzing the pieces through video-scores; improving the perception of music parameters, form and compositional techniques through a series of theoretical tasks. Classes took place once a week. The length of a single class was 45-90 minutes.

Results

- At the beginning, the boy composed exclusively for the piano. He introduced percussions after 4 months, and string instruments after 7 months;
- Aesthetic maturation of the boy was reflected in the introduction of new scales, as well as in descriptive titles of compositions and verbalizing his wish to evoke a certain emotional reaction in the listener;
- The advantages of using musical software are immediate audio feedback and increased speed of notation;
- Music softwares have not affected the development of melodic line significantly, but there are limitations concerning the choice of rhythm and meter, which has influenced a decrease in the boy's motivation for improving his compositions;
- Progress in notation rules application was noticed in the period of 6 months. There has been fewer errors and a greater level of understanding of the traditional music notation.

Conclusions

A pre-school child composes successfully, using simple forms and homophonic texture. The primary impulse for composing is usually connected to extramusical content. Pre-chosen music software patterns can limit productivity and affect the choice of meter and reduced use of certain rhythmic patterns, which eventually leads to motivation decrease. These limitations can be compensated by introducing traditional methods of notation. The boy applies his acquired theoretical knowledge through the instruction in composition and shows a critical attitude and a wish for upgrading the existing compositions.

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Keywords: composition, children, giftedness, music technology.

Iskustvo muzičara i afektivno vezivanje odraslih: eksplorativno istraživanje

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Teorijske osnove

Afektivno vezivanje odraslih izrasta iz mnoštva društvenih iskustava, planova i osećanja iz prošlosti, što može predodrediti i uticati na to kako se pristupa narednim vezama i kako se one izgrađuju. Teorija afektivnog vezivanja odraslih (TAVO, Bartholomew, 1990) predlaže četiri tipa odnosa, zasnovanih na anksioznosti i izbegavanju: Sigurni, Anksiozni-preokupirani, Odbacujući-izbegavajući i Bojažljivo-izbegavajući odnos. TAVO je bila ispitivana u mnoštvu setinga poput privatnih i terapijskih odnosa, obrazovnog konteksta, seksualne orijentacije, zdravlja i religije. U oblasti muzike, TAVO je korišćena kao okvir za objašnjavanje ponašanja u odnosu između nastavnika pevanja i studenata (Serra-Dawa, 2014), u muzikoterapiji (Malchiodi & Crewshaw, 2015) i anksioznosti u vezi sa muzičkim nastupom (Kenny, 2018).

Ciljevi

Imajući u vidu prethodna istraživanja, ovim ispitivanjem istražuju se tipovi afektivnog vezivanja karakteristični za odnos odraslih muzičara i njihovih nastavnika u toku studija (u tradiciji Zapadnih konzervatorijuma), zatim, da li instrument koji muzičar svira, kao i obrazovno i profesionalno iskustvo mogu biti povezani sa aktuelnim stilovima afektivnog vezivanja i sa zastupljenošću ranijih bitnih odnosa između nastavnika i učenika.

Metod

Uzorak čini 131 portugalski muzičar, instrumentalisti i nastavnici muzike. Oni sviraju instrumente sa dirkama (uključujući harmoniku) ($n = 43$), duvačke instrumente ($n = 41$), gudačke instrumente ($n = 26$) i pevaju ($n = 11$). Neki od učesnika su na univerzitetu završili obuku za nastavnika muzike (64.9%) ili za izvođača (58.8% od ukupnog uzorka). Uzevši u obzir njihov trenutni angažman, 80.2% učesnika su nastavnici instrumenata, a značajan broj njih nastupa solo (17.6%), u kvartetu (9.9%), u orkestru (18.3%) ili u bendu (14.5%). Korišćene su sledeće mere: 1) Skala afektivnih veza odraslih – revidirana (Collins and Read, 1990; portugalska verzija Canavarro, 1995); 2) Profil afektivne vezanosti namenjen odnosu nastavnik-student, o kome ispitanici sami izveštavaju (adaptirano iz Hazan & Shaver, 1990) a odnosi se na vezu nastavnika glavnog instrumenta i studenta u vreme studija muzike. Online upitnik je razvijen i prosleđen putem e-mail-a i društvenih mreža potencijalnim učesnicima. Pribavljena je saglasnost svakog od učesnika, a svi odgovori bili su anonimni. Za analizu podataka korišćen je IBM SPSS. Urađena je deskriptivna analiza sociodemografskih mera i profila afektivne vezanosti. Primenom ANOVA-e i hi-kvadrat testa obavljeno je poređenje između mera.

Rezultati

Primenom Bartolomjuove analize prototipa na Skali afektivne vezanosti odraslih (Collins, 1996), većina učesnika (68.8%) svrstana je u Sigurni obrazac, prati ih Odbacujući (9.2%), Preokupirani (3.7%) i Bojažljivi (1.8%). Nije bilo moguće svrstati 18 učesnika. Korišćenjem adaptirane verzije upitnika Hazana i Šejvera, utvrđeno je da se većina ispitanika može klasifikovati Sigurno (86.2%), Ambivalentno (7.3%) i Izbegavajuće vezan (6.4%). Povezanost između stila afektivne

vezanosti i profila afektivne vezanosti u odnosu učenik-nastavnik nije ustanovljena. Odnos između instrumenta, obuke koju su prošli, trenutnog zanimanja i afektivne vezanosti nije se pokazao značajno povezanim. Distribucija stilova i profila afektivne vezanosti slična je onoj nađenoj u opštoj populaciji (npr. Canavarro, Dias, & Lima, 2016), jer većina muzičara ispoljava sigurne profile afektivne vezanosti.

Zaključci

Nije pronađena očekivana povezanost između stilova partnerske vezanosti i profila afektivne vezanosti u odnosu učenik-nastavnik, o čemu su ispitanici sami izveštavali. Objašnjenje se može naći u specifičnosti dijadnog odnosa, uzorku, uslovima u kojima se nastava odvijala, pozitivnom ili negativnom odnosu sa značajnim nastavnikom. Izgleda da taj odnos nije povezan sa njihovim trenutnim stilovima afektivne vezanosti, u meri u kojoj su uticali drugi odnosi (izvan muzičkog okruženja). Dalja istraživanja mogu uključiti poređenje ranijih odnosa nastavnik-učenik sa trenutnim odnosom koji su ovi učesnici razvili sa svojim učenicima.

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Ključne reči: vezivanje odraslih, tip vezivanja, iskustvo muzičara, odnos između nastavnika i studenta.

Musicians' background and adult attachment: An exploratory study

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Background

Adult relationships accrue on a variety of past social experiences, intentions, and emotions that might predispose and influence the approach to and construction of subsequent relationships. The Adult Attachment Theory (AAT; Bartholomew, 1990) proposes four types of adult attachment, based on anxiety and avoidance: Secure, Anxious-preoccupied, Dismissive-avoidant, and Fearful-avoidant. The AAT has been studied in multiple settings such as personal and therapeutic relationships, educational settings, sexual orientation, health, and religion. In music research, the AAT has been used to frame the relational behavior between voice teachers and students (Serra-

Dawa, 2014), in music therapy (Malchiodi & Crewshaw, 2015) and in musical performance anxiety (Kenny, 2018).

Aims

Building on previous studies, the present inquiry studies which attachment types might characterize relationships between adult musicians and their music teachers in the past (in the Western Conservatory tradition), and whether instrument played, educational and occupational background might correlate to current attachment styles and to the representation of the previous main student-teacher relationship.

Method

The sample consisted of 131 Portuguese musicians, instrumentalists and music teachers. They play keyboard instruments (including accordion) ($n = 43$) wind instruments ($n = 41$), followed by string instruments ($n = 26$) and singers ($n = 11$). Some of the participants have university-level training in music teaching (64.9%) and in performance (58.8% of the total sample). Considering their occupation, 80.2% of them are instrument teachers and a considerable number of them are actively playing, either in solo (17.6%), in a quartet (9.9%), in an orchestra (18.3%) or in a band (14.5%). The following measures were used: 1) Adult Attachment Scale-Revised (AAS-R, Collins and Read, 1990; Portuguese version by Canavarró, 1995); 2) Self-reported attachment profile related to the student-teacher relationship (adapted from Hazan & Shaver, 1990), was adapted and was referring to the main instrumental teacher-student relationship, at the time of the music education. An online survey was developed, and the invitation was disseminated through e-mail and social media to potential participants. Consent was obtained from all participants and all responses were anonymous. Data analyses were performed using IBM SPSS. Descriptive statistics were calculated in order to characterize the participants' sociodemographic data and their attachment profile. A comparison between measures was made through ANOVA and chi-square test.

Results

Bartholomew's prototype analysis on the AAS-R showed that most participants (68.8%) were classified as Secure, followed by Dismissing (9.2%), Preoccupied (3.7%) and Fearful (1.8%); 18 participants could not be classified. By using an adapted version of the Hazan & Shaver questionnaire, it was confirmed again that most of the participants could be classified as Secure (86.2%), followed by Ambivalent (7.3%) and Avoidant (6.4%). No significant relations were found between the two measures of attachment. No significant relations were found between instrument, training history, current occupation, and attachment style. The distribution of attachment styles and profiles is similar to what has been reported in the general population (e.g. Canavarró, Dias, & Lima, 2016), with most musicians presenting Secure attachment profiles.

Conclusions

The expected association between adult attachment styles and self-reported student-teacher attachment profile was not found. The explanations could be found in the dyadic specificity of attachment; musicians' sample, in their training history, positive or negative relationship with an important teacher. It seems that the teacher-student relationship does not relate, as much as other past relationships (outside the musical environment) to their current adult attachment styles. Future studies may include a comparison between the previous teacher-student relationships with the current relationship developed with these participants' students.

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Keywords: adult attachment, attachment profile, musicians background, teacher-student relationship.

Psiho-tehnička metoda u nastavi klavira u svetlu modernih neuronauka

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Teorijske osnove

Na prelazu 19. u 20. vek, pod uticajem naučnih otkrića iz oblasti fiziologije i neurologije, došlo je do promene usmerenja u klavirskoj pedagogiji – od jednog prilično mehaničkog pristupa, ka psiho-tehničkom pristupu u praksi. U tom novom pristupu ključno je da se nikada ne vežba bez mentalne kontrole. Takva transformacija iznedrila je mnoštvo novih metoda u nastavi klavira koje su zasnovane na različitim mentalnim tehnikama. Međutim, bez obzira na to što su u upotrebi duže od jednog veka, mnoge od tih metoda se danas više ne koriste efikasno u praksi i nisu uvrštene u savremenu nastavu klavira usled nerazumevanja mehanizama na kojima počivaju.

Ciljevi

Ovaj rad ispituje postojeće teorijske pristupe u psihologiji muzike koji se mogu dovesti u vezu sa principima psiho-tehničke metode u nastavi klavira (Solyana, 2013), sa ciljem razmatranja njenih metodoloških postulata u svetlu modernih neuronauka. Ideja je da se na taj način može produbiti naše razumevanje same metode i podstaći njena bolja praktična upotreba u savremenoj klavirskoj pedagogiji.

Glavni doprinos

Osnovne ideje psiho-tehničke metode u nastavi klavira (PTM) se najbolje mogu opisati kao trijada međusobno povezanih akcija: slušanje, zamišljanje i stvaranje zvuka. Pregledom relevantnih studija o strategijama slušanja (Tuuri et al., 2007), auditornim mentalnim predstavama (Keller, 2012) i auditorno-motornim interakcijama (Zatorre et al., 2007), zajedno sa kliničkim ispitivanjima bioloških efekata zvučnih talasa na ljudsko telo (Tsaklis, 2010), dolazi se do toga da je ključna komponenta PTM trijade kvalitet auditornog fokusa. On omogućava tačnu motornu realizaciju tokom izvođenja kompozicije. Izbor odgovarajuće strategije slušanja ne samo da može uticati na fizičke pokrete pijaniste, već se potencijalno može odraziti i na određene aspekte interpretacije, kao što su izbor dinamike i tempa (Cancino-Chacon, 2018).

Implikacije

Razumevanje načina na koje zvuk može rukovoditi izvođenjem pijaniste moglo bi preusmeriti klavirsku pedagogiju ka pristupu koji se primarno zasniva na slušanju. Time bi se stvorila i osnova za dalja istraživanja usmerena ka pronalaženju najefikasnije strategije slušanja. Pored toga, ovakva zvučno orijentisana metodologija dala bi studentima slobodu da slušaju stvari na svoj način, umesto da se oslanjaju na instrukcije koje dobijaju sa strane.

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Ključne reči: psihotehnički metod u nastavi klavira, auditorni fokus, zvučna percepcija, mentalna klavirska tehnika.

Psycho-technical piano method in the light of modern neuroscience

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Background

At the turn of 19th to 20th century, piano pedagogy has shifted its focus, due to an influx of scientific discoveries from Physiology and Neurology, from a rather mechanical approach towards a psycho-technical one in its practice. This new approach is a brain-imperative way of training where no exercise is done without mental control. Such transformation generated the development of multiple piano methods based on different mental techniques. Many of those, in spite of being in use for more than a century, are not effectively practiced today or fully implemented in modern piano education due to the lack of understanding of its underlying mechanisms.

Aims

This article examines existing theories in music psychology that relate to the principles of Psycho-technical Piano Method (Solyana, 2013), with the aim of reviewing its methodological postulates in the light of modern neuroscience that can deepen our understanding of the method and stimulate its better practical use in today's piano pedagogy.

Main Contribution

Fundamental ideas of the Psycho-technical Piano Method (PPM) are best described as a basic triad of interconnected actions: Listening, Imagining, and Creating Sound. An overview of relevant studies on listening strategies (Tuuri et al., 2007), auditory mental imagery (Keller, 2012), and auditory-motor interactions (Zatorre et al., 2007), coupled with clinical research on the biological effect of acoustic waves on the human body (Tsaklis. 2010), suggest that the key component of the PPM triad, that plays a crucial role in its correct realization, is the quality of the auditory focus. It enables a correct motor realization during the performance. The right choice of the listening strategy can affect not only the pianist's physical movements but also potentially the interpretational aspects, such as the choice of dynamics and tempi (Cancino-Chacon, 2018).

Implications

Understanding the ways in which sound can navigate a pianist's performance can redirect piano pedagogy towards an auditory approach and provide a ground for further research of a rather correct listening strategy. Furthermore, a sound-oriented methodology allows students to hear things in their own way rather than relying on external instructions.

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Keywords: psychotechnical piano method, auditory focus, sound perception, mental piano technique.

Kinematički parametri pokreta gudala violiniste tokom izvođenja različitih vrsta artikulacije

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Teorijske osnove i ciljevi

Medicinska literatura o izvođačkim umetnostima ukazuje na to da su violinisti u većem riziku za razvoj profesionalnih oboljenja (Ackermann, 2012; Gembris & Heye, 2012). Mišićno-koštani poremećaji povezani sa sviranjem (MKPS) mogu imati različite uzroke, uključujući i repetitivne pokrete, telesno držanje, pogrešnu tehniku sviranja (Guptil & Zaza, 2010). U ovom radu ćemo predstaviti biomehanička istraživanja pokreta desne ruke jednog violiniste. Muzičar kvazi-statični mišićni napor u regiji ramena doživljava kao bol. Takođe, nepovoljna je i brza, izražajna lokomocija lakta i zgloba šake u prostoru. U ovim kinematičkim istraživanjima je bilo interesantno da potražimo uzroke žalbi i da uporedimo putanje pokreta gornjeg desnog ekstremiteta pri različitim tehnikama sviranja. Nadamo se da će ovo istraživanje biti korisno kao pomoć pri uspostavljanju medicinskih dijagnoza oboljenja muzičara.

Metod

Ova studija je obuhvatila 16 mladih violinista – studenata Muzičke akademije u Poznanju i 15 zrelih violinista – profesionalnih muzičara, članova simfonijskih orkestara. Stariji violinisti su nedavno iskusili mišićno-koštane poremećaje povezane sa sviranjem. Svi umetnici su izvodili isti kratak komad (Krojcerova *Etida br. 2*) više puta, svaki put primenjujući jednu od pet tehnika gudalom: Donji detaše, Gornji detaše, Spikato, Sotij, Legato (četiri povezane note). Sistem za beleženje pokreta (Motion Capture System) i Gypsy-5 egzoskeleton su korišćeni za merenje pokreta desnom rukom. Ova oprema je omogućila da dobijemo različite parametre koji se odnose na pokrete gornjeg desnog ekstremiteta violiniste tokom izvođenja, a da pri tom ne narušavamo njegovu tehniku sviranja.

Rezultati i zaključak

Mereni su sledeći parametri pokreta gudalom: ugao zglobova ramena i lakta, prostorna udaljenost između lakta i ručnog zgloba. Primećena je velika razlika pri poređenju različitih izvođačkih tehnika kod svakog ispitanika. Najduži put lakta i zgloba šake se primećuje prilikom izvođenja Gornjeg detašea (oko 77m - E, 43m - W), najkraći – kod Spikata (oko 22m - E, 16m - W). Najveći opseg pokreta u zglobovima ramena i šake zabeležen je kod tehnike Legato (oko 66° - S., 75° - E.). Najmanji opseg pokreta zgloba ramena je bio kod Sotija (oko 59°), a kod zgloba lakta – kod Spikata (about 55°). Značajne razlike su izmerene i između grupe mladih i starijih izvođača (najčešće kod tehnike gudalom Gornji detaše), gde je strategija uštede identifikovana kod grupe profesionalaca. Nakon statističke analize, svi numerički rezultati će biti predstavljeni na posteru. Pretpostavljamo da metod biomehaničkog istraživanja koji smo ovde predstavili može da pomogne pri dijagnostikovanju najčešćih oboljenja kod gudača. Dalje, Sistem beleženja pokreta može da bude koristan i kod preventivnih aktivnosti za muzičare, na primer, kod vežbi usmerenih na optimizaciju tehnike sviranja sa korišćenjem signala *biofidbeka*.

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Ključne reči: pokreti gudala violiniste, mišićno-koštani poremećaji, bol povezan sa sviranjem, biomehanička dijagnoza.

Kinematic parameters of violinist's bowing arm during the playing of different kinds of articulation

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Background and aims

The performing arts medicine literature indicates that violinists are a high-risk group for occupational diseases (Ackermann, 2012; Gembris & Heye, 2012). Playing-related musculoskeletal disorders (PRMDs) can have various causes, including repetitive movement, body position, a faulty technique of playing (Guptil & Zaza, 2010). This work presents biomechanical studies of the right-hand movement of a violinist. The quasi-static muscular effort in the shoulder area is painfully felt by the musician. Also, the quick, expressive locomotion of the elbow and wrist in space is unfavorable. Interesting in these kinematic studies was to look for the causes of the complaint and to compare the trajectory of the movement of the right upper extremity in various instrumental playing techniques. We hope that this research is helpful in assisting the medical diagnoses of ailments in musicians.

Method

The study included 16 young violinists – students of the Music Academy of Poznan, and 15 mature violinists – professional musicians, members of a symphony orchestra. Older violinists had a recent experience of PRMDs. All artists performed the same short piece (R. Kreutzer's *Etude No. 2*) multiple times, each time applying one of the following five bowing techniques: Lower detache, Upper detache, Spiccato, Sautille, Legato (four connected notes). The Motion Capture system and the Gypsy-5 exoskeleton were used for the measurement of their right arm movements. This equipment made it possible to obtain various parameters concerning right upper extremity movement during work of violinists, without distorting their playing technique.

Results and Conclusions

The following parameters of the bowing arm were measured: angles in the shoulder and elbow joints, the distance covered in space by the elbow and the wrist joints. The greatest differences can be noted in the comparison of various playing techniques in each tested person. The longest elbow and wrist path can be observed while playing the Upper detache method (about 77m - E.,

43m -W.), the shortest - in Spiccato (about 22m - E., 16m - W.). The largest range of movement in the shoulder joint and elbow joint was observed in the technique Legato (about 66°- S., 75°- E.). The smallest range of motion in the shoulder joint was in Sautille (about 59°), and in the elbow joint – in Spiccato (about 55°). Significant differences were also measured between the young group and the mature group (most often in the bowing technique Upper detache), the saving strategy has the professionals' group. After statistical analysis, all numerical results will be presented on the poster. Presumably, the methods of biomechanical research presented here may help in the diagnosis of the most common ailments in string instrumentalists. Furthermore, the Motion Capture system can be useful in preventive activities for musicians, for example, exercises aimed at a technical optimization of the playing technique with the use of the biofeedback signal.

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Keywords: violinist's bowing arm, musculoskeletal disorders, playing-related pain, biomechanical diagnosis.

Uloga tela i telesnih pokreta u ekspresivnom izvođenju

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Teorijske osnove

Teorijska baza istraživanja je psihologija muzičkog izvođenja. Tačnije, relacija: struktura muzičkog dela – pokreti telom, gestovi, mimika – otelovljeno značenje – izražajnost (Popović Mladenović & Bogunović & Perković, 2014). Korišćene su i studije Džejn Dejvidson (Davidson & Correiga, 2002) i Dejvidson i Meri Broton (Davidson & Broughton, 2016) u vezi sa koordinacijom, kolaboracijom i komunikacijom posredstvom pokreta tela tokom muzičkog izvođenja, kao i studija Dejvidsonove (2002b) u vezi sa komuniciranjem telom u muzičkom performansu.

Ciljevi

Proširenje empirijskih istraživanja u oblasti psihologije muzike u odnosu na postojeće radove. Pridavanje važnosti ulozi tela i telesnih pokreta u ekspresivnom izvođenju muzičkog dela. Kvantifikovanje pokreta telom koji se primećuju prilikom komparacije dva izvođenja Šopenovog (Frederic Chopin) dela.

Metod

Na primeru dva izvođenja Šopenovog dela *Fantasia-Improptu*, op. 66, cis-mol, izvršena je komparacija ekspresivne kinestetičke komunikacije uz pomoć pokreta telom, gestova, mimike i zvukova proizvedenih prilikom izvođenja. Analizirana su izvođenja Dmitrija Šiškina (Dmitry Shishkin) i Anastasie Hupman (Anastasia Huppmann). Izbor navedenih pijanista napravljen je usled vremenske bliskosti izvođenja dela i činjenice da rodna razlika može intrigantno da doprinese istraživanju. Analizirani su: mimika lica, njihanje torza napred-nazad i levo-desno, pokreti ručnih zglobova, intenzitet disanja, kao i strateško sprovođenje navedenih pokreta u skladu sa izazovima pijanističkog dela u određenim deonicama partiture. Nakon opservacije pojedinačnih izvođenja, izvršeno je upoređivanje intenziteta pokreta u odnosu na dinamičke i agogičke oznake koje su obeležene u partituri dela. Zatim su upoređeni intenzitet i vrste pokreta izvođača. Nakon komparacije, dobijeni rezultati su utemeljeni uz pomoć dostupne teorijske podloge.

Rezultati

U interpretacijama Šopenove *Fantasia-Improptu* analizirani ispitanici implicirali su kompozitorove intencije zapisane u partituri (dinamičke, agogičke oznake) i povezali međusobno pokrete tela i partituru. Analizom izvođenja formiran je odgovor na pitanje kako telesna interpretacija partiture može da doprinese komunikacijskom procesu koji uključuje telo kao izvestan 'ekran' emocija i psiho-fizičkog stanja izvođača. Mimika oba izvođača pratila je muzički tok; pokreti telom znatno su izraženiji kod muškog izvođača (čak prenatlašeni), dok je (ne)svesna kontrola torza kod ženskog izvođača izraženija prilikom performansa. Pokazatelji ekspresivnog izvođenja (Davidson, 2002) variraju intenzitetom kod Šiškina i Hupmanove.

Zaključci

Analiza Šopenovog dela *Fantasia-Improptu* ne bi bila u potpunosti kompletirana ukoliko bi se zanemarilo izvođenje uživo i pokreti telom/gestovi/mimika. Ekspresije pokreta se na momente razlikuju među izvođačima usled individualnog doživljaja emocija u datom trenutku. Svi napravljeni pokreti su svojstveni pojedinačnim izvođačima i njihovo izražavanje predstavlja adekvatan odgovor na proizvedeni auditivni stimulus.

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Ključne reči: klavirska muzika, mimika, pokreti telom, ekspresija, komparacija.

The role of the body and its movements in expressive performance

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Background

The theoretical base for this research is the psychology of musical performance. Precisely, the relationship: the structure of the musical piece – movements of the body, gestures, mime – the signified meaning – the expression (Popović Mladenović & Bogunović & Perković, 2014). Also, the studies that were used are written by Jane Davidson (Davidson & Correiga, 2002) and Mary Broughton (2016) in connection with coordination, collaboration and communication through the body movement during music performance, as well as the study by Davidson (2002), related to communication with the body in musical performance.

Aims

The main aim is an extension of empirical researches in the field of psychology of music in relation to existing works. Also, to enhance the importance of the role of the body and body movements during the expressive performance of the musical piece. Quantification of the body movements observed when comparing two performances of the Frederic Chopin piece.

Method

The comparison of expressive kinesthetic communication was deducted on two performances of Chopin's work *Fantasia-Improptu*, op. 66, C# minor, with the help of body motions, gestures, mimics and sounds produced during the performance. The performances of Dmitry Shishkin, and Anastasia Huppmann, were analyzed. The selection of these two pianists was made due to the performance conducted in a close time frame and due to the fact that the gender difference can intriguingly contribute to the research. The facial mimics, forward-backward and left-right movements of the back, the movements of the wrists, the intensity of breathing, as well as the strategic implementation of these movements were analyzed in accordance with the challenges of pianist work in certain parts of the score. After observing the individual performances, a comparison regarding the intensity of the movements in relation to the dynamic and to the agogic signs that were marked in the score was made. The intensity and types of movements between the performers were compared; the obtained results were justified in the available theoretical background.

Results

In the interpretations of Chopin's *Fantasia-Improptu*, performers implied the composer's intentions written in the score (dynamic, agogic) and interconnected the movements of the body with the music sheet. The answer to the question was formed through this analysis: how the body interpretation of the score can contribute to a communication process that involves the body as a certain emotional 'screen' and psycho-physical condition of the performer. The mime of both performers followed the music stream; it has also been observed, that body movements were much more expressed with the male performer (even exaggerated), and (un)conscious torso control with the female performer. Expression performance indicators (Davidson, 2002) vary by the intensity in Shishkin's and Huppmann's performance.

Conclusions

The analysis of Chopin's work *Fantasia-Improptu* would not be completed if we would neglect the live performances and body movements/gestures/mime. The movements' expressions differ, from time to time, between the performers due to the individual experience of emotions at a given moment. All made movements are unique to the individual performers and their expression represents an adequate response to the produced sound stimulus.

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Keywords: piano music, mimic, body movements, expressiveness, comparison.

Prisustvo 'transcendencije' u muzici: pregled časopisa *Psihologija muzike*

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Teorijske osnove

Transcendencija u stvaranju muzike je fenomen koji prevazilazi tehniku i izražajnost. Karl Jung (Jung, 1971) transcendenciju psihološki definiše kao funkciju koja proizilazi iz sjedinjavanja svesnih i nesvesnih sadržaja. Mada je ova tema bila istaknuta u ranim humanističkim debatama, pre svega od strane psihologa Abrahama Harolda Maslova (Maslow, 1970), uglavnom je zanemarena u oblasti muzike zbog manjka empirijskih dokaza i preovlađujućeg fokusa na hedonističko zadovoljstvo i iskustvo. Sa Maslovljevog gledišta, muzika je jedna od najzastupljenijih aktivnosti kad se misli na fenomen transcendencije i nalazi se na vrhu hijerarhije razvojnih potreba čoveka.

Ciljevi

Ovaj rad ima za cilj da razume kako se u kontekstu psihologije muzike pristupalo fenomenu transcendencije u stvaranju muzike.

Metod

Istraživanje je sprovedeno u odnosu na članke objavljene u časopisu *Psihologija muzike*. Analizirani su sva izdanja časopisa da bismo pronašli članke koji tematizuju pojam transcendencije. Istražujući odnos autora prema ovom pojmu, ispitali smo 71 članak koji su objavljeni između januara 1973. i maja 2019. godine.

Glavni doprinos

Autori tretiraju faktor transcendencije kao emociju, na istom nivou kao nostalgiju (Geeves, McIlwain, Sutton, 2016; Ascenso, Williamon & Perkins, 2017). Uključeni su doživljaji transcendencije u muzici u vezi sa duhovnošću, a samo jedan tekst (Lyvers, Cotterell, & Thorberg, 2018) razmatra iskustvo transcendencije u muzici kao izmenjeno stanje svesti. Razmatra se dimenzija svetog u iskustvu transcendencije u muzici (Demmrich, 2018) i interakcije muzike i religije (Fung, 2017). Pronašli smo izveštaje o intenzivnim muzičkim doživljajima (Intense Musical Experience; Schäfer, Smukalla, Oelker, 2013) i snažnim muzičkim doživljajima (Strong Musical Experience; Lamont, 2012) u vezi sa transcendencijom. Takođe smo pronašli da među istraživačima koji su poslednjih godina objavljivali u časopisu *Psihologija muzike*, interesovanje za transcendenciju raste.

Implikacije

Dalje istraživanje bi moglo da se razvija u smeru dostizanja dubokog i detaljnog razumevanja psihičkih procesa koji čine faktore transcendencije u muzici, čime bi transcendencija postala jedan od centralnih problema u psihološkim istraživanjima.

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Ključne reči: transcendencija, muzika, psihologija muzike.

'Transcendence' presence in music: Journal of *Psychology of Music* review

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Background

'Transcendence' in music-making is a phenomenon that goes beyond technique and expressiveness. In the psychological aspect, Carl Jung (Jung, 1971) defines 'transcendent' as a function that results from conscious and unconscious contents union. Although the theme was highlighted in early humanistic debates, mainly by psychologist Abraham Harold Maslow (Maslow, 1970), it has been largely neglected in the music field due to the lack of empirical evidence and a predominant focus on hedonic pleasure or experience. From Maslow's point of view, music is one of the most prevalent activities when one refers to the transcendence phenomenon and stands at the top of the hierarchy of human development needs.

Aims

The present work aimed to understand how the phenomenon of 'transcendence' in the music-making has been approached in the context of music psychology.

Method

The search was conducted only in the journal *Psychology of Music*, which is fully inserted in the scope of the research. We examined 71 articles found investigating the concept of 'transcendence' and its relation to music, between January 1973 – May 2019.

Main Contribution

Authors treat 'transcendence' factor as an emotion, on the same level of 'nostalgia' (Geeves, McIlwain, Sutton, 2016; Ascenso, Williamon & Perkins, 2017). Transcendental experiences in music related to spirituality are admitted, and only one article (Lyvers, Cotterell, & Thorberg, 2018) considered the transcendent experience with music as an altered state of consciousness. The dimension of the sacred in the transcendent experiences (Demmrich, 2018) in music and

the interaction of music and religion are considered (Fung, 2017). We found reports of Intense Musical Experiences (IME, Schäfer, Smukalla, Oelker, 2013) and Strong Musical Experiences (SME, Lamont, 2012) related. We also found that among the researchers who published in the journal *Psychology of Music*, interest in the theme of 'transcendence' has grown over the last 10 years.

Implications

Future research may advance in order to reach a detailed and deep understanding of how the transcendental factor in music consists of a psychic process, being, therefore, central to research in music psychology.

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Keywords: transcendence, music, the psychology of music.

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