Fourth International Conference on Self-Determination Theory

May 13 - 16, 2010

Ghent University
BELGIUM
Self-Determination Theory (SDT) is a rapidly growing theory of human motivation and personality development. The theory was founded by Edward L. Deci and Richard M. Ryan at the University of Rochester, and has been elaborated and refined by scholars from many countries. It is increasingly receiving attention from scholars across the globe and has been applied in many diverse fields of psychology.
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Dear conference participant,

We are very excited to welcome you to the Fourth International Conference on Self-Determination Theory. We are pleased that the University of Gent is hosting this conference, the first to be held in Europe. We were more than happy to organize this event because we believe that the conference is of utmost importance for the ongoing, coherent development of Self-Determination Theory, with each scholar adding his or her own piece to the steadily expanding theory. The conference is an excellent opportunity to network, present, and exchange new ideas and results, and to learn from one another.

Over the years, the number of participants attending the conference has steadily increased. This year more than 128 faculty members are presenting talks on their SDT research, 276 scholars are presenting posters, and likely more than 500 are attending. Participants come from a wide variety of countries, including Russia, China, New Zealand, Jordan, Iran, Ghana, South-Africa, Peru, USA, Canada and almost every single European country. This mixture of cultures that SDT seems to attract attests to the claims of SDT concerning universal needs, and it also helps us reflect more deeply about the cross-cultural applications of the theory. In addition to these cross-cultural dynamics, the list of topics and life domains has steadily increased. Talks and posters will be presented on theoretical topics as diverse as basic need satisfaction, goal-content, vitality and well-being, non-conscious processing, and mindfulness, as well domains such as (physical) education, prosocial behavior, work and unemployment, psychotherapy and health care, relationships, sustainability, religion, eating regulation, and gaming.

Historical note

The First International Conference on Self-Determination Theory was organized by Edward Deci and Richard Ryan (University of Rochester, USA) in 1999 and about thirty faculty presented their work on SDT and shared thoughts and ideas. There were 99 attendees. The first Handbook of Self-Determination Research, edited by Deci and Ryan (2002), was the product of this fruitful gathering and continues to represent a key reference in the field of self-determination theory today. In 2004, Luc Pelletier and colleagues, at the University of Ottawa, Canada, hosted the Second International Conference on Self-Determination Theory, with approximately 200 participants from 13 countries attending the conference. Forty-nine faculty members presented their work and more than 50 posters were presented. Three years later, in 2007, Jennifer La Guardia (University of Waterloo, Canada) and Shannon Robertson (University of Rochester, USA) organized the Third International Self-Determination Theory Conference at the University of Toronto. Over 300 people from 23 countries attended the conference, where 71 papers were presented and two poster sessions were held including over 140 posters.
The number of papers and posters presented at the 2010 conference in Gent has doubled and is indicative of the growing popularity of self-determination theory in very diverse fields of psychology.

Program

Giving the hundreds of paper and poster submission we were able to create a quite diverse conference program, which spans four days, 13-16 May (with half-a-day on the first and fourth days). These are some of the main features of the program:

- **Opening Address & Closing Remarks:** Edward Deci and Richard Ryan, the co-founders of SDT, will give an opening address and closing talk on the first and last day of the conference, respectively. Attending these talks is certainly a must!

- **Plenary Talks:** We asked several experts in SDT to give plenary talks presenting their programmatic research. These talks cover topics of interest within SDT such as work, health care, mindfulness, and passion, among others.

- **Symposia:** This time, several symposia are organized that deal with particular theoretical themes, including issues such as: need-thwarting; priming motivational orientations; SDT-based interventions; the nature of the concept of autonomy support relative to control; the autonomy continuum; and goal-contents. Speakers were invited to be part of these symposia.

- **Theoretical & Applied Days:** We composed the program in such a way that theoretical topics would be covered primarily on Friday, the theoretical day, while more applied topics would be covered on Saturday, the applied day. Also, because an increasing number of practitioners are using SDT as a source of inspiration for their daily work, we created the possibility for practitioners to register for just part of the conference, attending the opening day (Thursday) and applied day (Saturday).

- **Sessions:** We grouped individual presentations selected from incoming submissions into sessions of related topics. In total, 31 sessions, each including three or four presenters, were created. On Friday, the theoretical day, sessions deal primarily with more theoretical topics such as emotion regulation, basic need satisfaction, goal-contents, biological correlates of autonomy etc., while on Saturday, the applied day, sessions cover topics such as parenting, sports, educational interventions, health care, work, and sport and exercise.

- **Workshops:** Further, two workshop sessions will also be organized. “Teaching” workshops focus on further orienting people to aspects of the field of SDT and will primarily take place on the applied day, because practitioners might have an interest in attending those. “Brainstorm” workshops focus on the generation and development of new ideas that might be addressed in future research and primarily take place on Friday, the theoretical day.

- **Poster Sessions:** Finally, three large poster sessions are organized during lunch
time on Friday through Sunday. We grouped posters that deal with related topics, and we located more theory-focused contributions on Friday and more application-focused contributions on Saturday, while the Sunday poster session involves a mix of both.

Social program

Because a conference is an excellent occasion to get to know each other on a more personal basis, we have included a number of social activities. On the opening day, a reception is held to meet and greet. Hopefully, we will have sunny weather because you can exchange your ice-cream voucher for a tasty ice-cream on Friday or Saturday afternoon at the conference venue. A Belgian surprise will be presented at the conference dinner on Saturday night and we hope each of you still has the energy by that time to dance because we reserved a live band to continue the good tradition of former self-determination theory conferences! On top of all this, Gent offers a lot of interesting cultural monuments, such as the Belfrey and the Castle of the Counts, and museums like the City Museum of Contemporary Art. Also, the old city centre with the Graslei and the Korenmarkt are definitely worth a visit and you can hang out on one of the many terraces to enjoy a Belgian beer! We included a list of tasty Belgian beers in the tourist information section as well as a list of good restaurants where you might have dinner. Each of you also received a boat-trip voucher you can exchange any time during the conference to do some sightseeing from the water! We hope you enjoy your stay and don’t hesitate to ask for further information at the tourism desk at the reception during the conference.

Thank you

We would like to thank the following people for their support and help in organizing this conference: our doctoral students (see next pages for more information), Geoffrey Van Hulle (external consultant), Prof. Dr. Geert De Soete (dean of our faculty), Shannon Robertson Hoefen, and Richard Ryan and Edward Deci. Finally, we thank you for participating in this meeting to advance the sciences of motivation and wellbeing as explored within the framework of SDT.

This event is support by the Fund for Scientific Research Flanders (FWO).
ABOUT THE TEAM...

This is a picture of the Ghent team. We received support from people at the Catholic University of Leuven (not shown in this picture) as well as from Shannon Robertson Hoefen (University of Rochester).

Top row (from left to right): Lynn van den Berghe (striker I), Evie Kins (right winger), Katrijn Brenning (wingback), Joke Van Dorpe (defensive midfielder), Liesbet Boone (striker II), Joke Verstuyf (goal keeper), Beiwen Chen (left winger), Dorien Wuyts (full-back)

Bottom row (from left to right): Maarten Vansteenkiste (center midfielder), Wim Beyers (sweeper/libero), Bart Soenens (replacement for the center midfielder), Stijn Van Petegem (butcher-type centre-back)
Maarten Vansteenkiste  
Professor at Ghent University in the Department of Developmental, Social – and Clinical Psychology  

Research interests: Developing and applying SDT in the domains of psychotherapy, eating disorders, sports and exercise, education, and unemployment and work  
Favourite place in Ghent: “Patershol”

Wim Beyers  
Professor at Ghent University in the Department of Developmental, Social – and Clinical Psychology  

Research interests: Social and emotional development in adolescence and emerging adulthood: separation-individuation, autonomy, identity, intimacy, and sexuality  
Favourite place in Ghent: “Sleepstraat” for its’ Turkish shops and hospitable people!

Leen Haerens  
Professor at Ghent University in the Department of Movement and Sports Sciences  

Research interests: the Health-promoting role of physical education: motivation as a mediating variable between teachers need supportive behaviors and pupils’ activity levels  
Favourite place in Ghent: “graslei”

Stijn Van Petegem  
Phd student at Ghent University in the Department of Developmental, Social – and Clinical Psychology  

Research interests: Adolescent autonomy from a developmental as well as an SDT perspective, and its relation with parenting, attachment, identity and intimacy.  
Favourite place in Ghent: The sunny rooftop terrace of the “Mosquito Coast”

Bart Soenens  
Professor at Ghent University in the Department of Developmental, Social – and Clinical Psychology  

Research interests: Autonomy-supportive and controlling parenting, internalization, identity development, perfectionism, religiosity  
Favourite place in Ghent: “railway station Gent St. Pieters”

Shannon Robertson Hoefen  
Coordinator of the Human Motivation Research Group University of Rochester  

Favourite place in Ghent: Yet to discover

Eline Sierens  
Phd student at KULeuven in the Department of School Psychology and Child and Adolescent Development  

Research interests: Antecedents, mediators, and outcomes of teaching dimensions from a cross-sectional and longitudinal perspective  
Favourite place in Ghent: “Tequila Pub”

Joke Van Dorpe  
Phd student at Ghent University in the Department of Developmental, Social – and Clinical Psychology  

Research interests: I’m interested in the antecedents and outcomes of need frustration. Specific interest in diary and experimental studies.  
Favourite place in Ghent: “De geus van Gent”
<table>
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<tr>
<th>Name</th>
<th>Research interests</th>
<th>Favourite place</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dorien Wuyts</strong></td>
<td>What makes parents controlling or autonomy supportive?</td>
<td>Roeiclub in Ghent</td>
</tr>
<tr>
<td><strong>Chen Beiwen</strong></td>
<td>Cross-cultural similarities and differences in autonomy, independence, decision making and identity style: A comparison of Belgium and China</td>
<td>Stalhof area in Ghent</td>
</tr>
<tr>
<td><strong>Evie Kins</strong></td>
<td>Home leaving in emerging adulthood: the impact of coresiding with your parents during this life stage on the further development to adulthood</td>
<td>Lievekaai in Ghent (near Gravensteen)</td>
</tr>
<tr>
<td><strong>Liesbet Boone</strong></td>
<td>Perfectionism and its influence on eating disorder symptoms: the mediating role of need satisfaction</td>
<td>Spinnekop, den hopduvel, Blaarmeersen in Ghent</td>
</tr>
<tr>
<td><strong>Nathalie Aelterman</strong></td>
<td>Motivation, physical education, need-supportive teaching, personality</td>
<td>De gekroonde hoofden, Baan Thai, Charlatan, Polé Polé, Gentse Feesten in Ghent</td>
</tr>
<tr>
<td><strong>Katrijn Brenning</strong></td>
<td>The intergenerational transmission of attachment, depressive symptoms, parenting, and processes of emotion regulation</td>
<td>Graslei in Ghent</td>
</tr>
<tr>
<td><strong>Joke Verstuyf</strong></td>
<td>The influence of goals and motives on body dissatisfaction, eating regulation and disordered eating: need frustration as a mediating mechanism.</td>
<td>Bourgoyen”, “GEC”, “Graslei” in Ghent</td>
</tr>
<tr>
<td><strong>Lynn van den Berghe</strong></td>
<td>I’m interested in physical education, teacher motivation and teacher behaviour</td>
<td>Chocolade bar in Ghent</td>
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GENERAL INFORMATION

Conference venues
All events on Thursday (including the registration) will be held at the Aula of Ghent, (Volderstraat 9, 9000 Ghent). The events on Friday-Sunday will be held at the Faculty of Psychology and Educational Sciences (Henri Dunantlaan 2, 9000 Ghent).

General information
The people at the reception desk will be more than happy to help you with questions regarding the program, presentation rooms, internet access, hotels and tourism.

Computer and internet facilities
Computers can be used in pc-room 2 on the first floor (Opening Hours 8.00 a.m. -> 18.00 p.m.). The 8 computers in the back have an English windows version, the others have a Dutch window version. To Login use the button 'anonymous' (or 'anoniem' in Dutch). A wireless internet connection is available in the Faculty building (Friday-Sunday). To connect to the internet, please use the following user name and pass word.

Print/copy facilities
To print or copy a print- and copy card is needed. This card costs two euro (four eurocent per page). It can be bought at the vending machine in the entrance hall of the faculty.

Card machine OCÉ

To print:
- Start a print job from a PC in the PC room.
- Slide the card in the OCÉ machine.
- Choose printing and select user ‘generic’ and your document from the list on the display

To copy
- Slide the card into the OCÉ machine.
- Choose copying and place the originals on the glass plate.

Information
If you have any further questions regarding the conference, feel free to e-mail the organisers at sdtconference2010@gmail.com
Travelling Information for the Opening Day (13/05)

STATION ➔ AULA VOLDERSTRAAT (opening day 13/05) = CITY CENTER

What you see on the map is the **walking way**

Distance: 2.3 km / 1.4 mi  
Time: 28 mins

- **A taxi**
- **Tram 1** (Direction: Justitie paleis)  
  Stop: Justitie paleis
- **Tram 21 or 22** (Directions: Gentbrugge or Melle Leeuw)  
  Stop: Vogelmarkt

(don’t take tram 21 or 22 at this place)

Travelling Information for the Remaining Day (14/05 - 16/05)

STATION ➔ FACULTY BUILDING, H. Durandlaan 2 (remaining days 14-16/05)

What you see on the map is the **walking way**

Distance: 2.1 km / 1.3 mi  
Time: 25 mins

As an alternative you can take:

- **A taxi**
- **Tram 4** (Direction: Moscow)  
  Stop: Berard Saelemaen
- **Bus 9** (Direction: Mariakerke)  
  Stop: Benedikplein
- **Tram 21 or 22** (Directions: Gentbrugge or Melle Leeuw)  
  Stop: Bernard Saelemaen

(don’t take tram 21 or 22 at this place)
SOCIAL ACTIVITIES

We provide a number of opportunities for fun, social networking, and satisfying your physical needs.

**Drinking at the reception** on Thursday, 13th (6.00-7.30 pm) at the Aula of Ghent (Volderstraat 9)

**Ice cream licking:** you will find one voucher in your conference bag that can be exchanged for an ice-cream (two balls!). You can use this voucher at the main entrance of the faculty building between 3 and 5 pm (on Friday or Saturday).

**Eating and dancing at the Saturday dinner:** the dinner starts at 7.30 pm at the International Convention Center (ICC; Citadelpark)

**Sightseeing on a boat trip:** you will find a voucher in your conference bag that can be exchanged for a 40-minute guided boat trip through Ghent. Address: the green boathouse at Korenlei 4A (Departure place = arrival point). You can use this voucher from 10am till 6pm on May 13th till May 17th.
ABOUT GHENT...

Ghent is the fourth largest city of Belgium with about 250,000 inhabitants. It can be no coincidence that Ghent, the capital of East Flanders, was given several pretty names: historic heart of Flanders, a city of all times, one of the most beautiful historic cities in Europe,... For some people Ghent is the real diamond of Flanders and Belgium. The city started as a settlement at the confluence of the Rivers Scheldt and Lys and in the Middle Ages became one of the largest and richest cities of northern Europe. Today it is a busy city with a port and a university, combining an impressive past and a vivid present. It is definitely worthwhile to discover all facets of this magnificent city. The following overview presents in a nutshell what Ghent has to offer.

www.visitgent.be

HISTORIC GHENT...

The historic heart of the city offers a lot of places of interest. Much of Ghent’s medieval architecture remains intact and is remarkably well preserved and restored. Its centre is the largest carfree area in Belgium. Interesting highlights are the Saint Bavo Cathedral with the Ghent Altarpiece, the belfry, the Castle of the Counts, and the splendid architecture along the old Graslei harbor.

The Cathedral was named after Saint Bavo, a 7th century local nobleman who became a saint after he had given away his possessions to the poor and entered the monastery. The cathedral with its mighty uprising tower is perhaps the most visible sign of the pride of the citizens of Ghent. A trove of art treasures: 22 altars (!), a Rococo pulpit in marble and oak and of course the exquisite highlight: 'The Adoration of the Mystic Lamb' by the Van Eyck brothers.

The counts of Flanders had castles built in the principal cities of the county. Because they had to maintain law and order, they continuously had to move from one city to the other. Therefore, they disposed of a castle in most cities where they wanted to stay for a few months. The castle of Ghent is the only one which survived the centuries more or less intact.
ABOUT GHENT...

The Belfry is the proudest symbol of the city’s independence. The civil privileges that the city received in 1180 are still kept in the tower. The façade is adorned with the ‘Mammelokker’ which depicts the legend of Cimon who was condemned to starve to death. He was saved by his daughter who fed him daily from her breast (‘mamme’: breast - ‘lokken’: suck). The Belfry is the middle of the famous three-tower row, together with the Saint Bavo’s Cathedral and the Saint Nicholas’ Church.

The Graslei is one of the most scenic places in Ghent’s old city centre.

CULTURAL AND ARTISTIC GHENT...

The S.M.A.K. is probably the best-known and most notorious museum of Ghent. The permanent collection of top national and international works is presented in continuous interaction with original, often daring exhibitions, including Joseph Beuys and Andy Warhol.

The strength and the charm of the M.S.K is the variety of its collection and the way it is presented: never before have the old masters hung so perfectly in place as they do in the fully restored museum. You’ll find paintings by Hieronymus Bosch, Pieter Paul Rubens and many Flemish masters.

The Huis van Alijn (House of the Alijn family) was originally a beguinage and is now a museum for folk art where theatre and puppet shows for children are presented.

A museum in Belgium’s oldest psychiatric hospital, built in 1857: you’d be crazy not to pay it a visit. In this wonderful oasis you will find a permanent collection that illustrates the history of psychiatry and an international collection of outsider art or art brut.
ABOUT GHENT...

RECREATIONAL GHENT...

Nature, sports and leisure

The city of Ghent has a quite beautiful nature reserve at its disposal. The Bourgoyen-Ossemeersen is a 230-hectare flood area that provides vital a migratory winter habitat for hundreds of species of birds.

The domain can be explored on three attractively laid out walking routes. The new visitors’ centre is a model of sustainability.

When the weather’s fine, the beach at the Blaarmeersen sports and recreation park is the place to be. Apart from a large lake for swimming, surfing, diving and waterskiing, there is also an athletics track, a roller-skating track, a skate park, mini-golf course, football pitches, squash and tennis courts and the only 5-star camping site in the Ghent area. Access to the Blaarmeersen is free.

Shopping

You’ll find branches of just about all the main retail chains in Veldstraat and Lange Munt. If you venture off the ‘beaten track’ you’ll come across the smaller boutiques, in Volderstraat, Henegouwenstraat and Mageleinstraat, for example. Near St James’ Church and in the Baudelostraat you can pick up lovely secondhand items for a song. Discover art and antiques in Steendam and Burgstraat. Walk down Vlaanderenstraat to the modern Shopping Centre Ghent South on Wilsonplein (Wilson Square), opposite the public library.
ABOUT GHENT...

Pubs

Not only in the daytime there is so much to do, it’s well worth going out into town in the evening and at night. The atmosphere of Ghent’s nightlife profits from the superb and sophisticated lighting of the buildings and monuments in the city centre, for which Ghent was awarded with three Michelin stars. Ghent contains hundreds of cafés offering a broad range of drinks, interiors and music genres...The following list offers a small selection of pubs and bars that are worth a visit. Since Belgium is known for its broad range of beers, you should definitely try to find out what is your favorite!

<table>
<thead>
<tr>
<th>Pub Name</th>
<th>Description</th>
<th>Location</th>
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<tbody>
<tr>
<td>De Dulle Griet</td>
<td>Pub with an ancient interior offering more than 250 different national and international beers. Specialty: Max-beer in a boot-shaped glass</td>
<td>Vrijdagmarkt 50</td>
</tr>
<tr>
<td>Het onverwacht geluk</td>
<td>Retro jazz café with a focus on Swing, Bebop and Cooljazz from the forties and fifties.</td>
<td>Burgstraat 59</td>
</tr>
<tr>
<td>Het waterhuis aan de bierkant</td>
<td>Pub for beer experts and tourists with a terrace along the banks of the Lys. Specialty: 165 different kinds of beer and three house beers (Gandavum, Kloeke Roeland and Mammelokker)</td>
<td>Groentenmarkt 9</td>
</tr>
<tr>
<td>Hotsy Totsy</td>
<td>Cosy pub with a glorious history and a magnificent interior, a pool table and party games.</td>
<td>Hoogstraat 1</td>
</tr>
<tr>
<td>Limonada</td>
<td>Chill-out cocktail bar in a vintage seventies interior with relaxing seats and sofas. Specialty: Freshly made cocktails</td>
<td>Heilige Geeststraat 7</td>
</tr>
<tr>
<td>Pink Flamingo’s</td>
<td>Kitsch and lounge bar with fancy decors and good music. Specialty: Beers and cocktails</td>
<td>Onderstraat 55</td>
</tr>
<tr>
<td>Trollekelder</td>
<td>Pub with a 15th century scenery to have a peaceful and intimate chat. Specialty: Cheese, wine and more than 150 different kinds of beer, but no regular pints!</td>
<td>St.-Jacobs 17</td>
</tr>
<tr>
<td>Vooruit Kafee</td>
<td>Talk pub with a art deco interior and cultural temple for theatre, concerts and parties. Specialty: Free concerts and dj’s</td>
<td>St.-Pietersnieuwstraat 23</td>
</tr>
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</table>
ABOUT GHENT...

CULINARY GHENT...

As most of the Belgian cities, Ghent offers a rich variety of local and foreign cuisine. The city centre and quarter called ‘Patershol’ has a huge concentration of restaurants.

As with many areas of northern Belgium the diet centers around hearty stews and soups. Flemish beef stew (called ‘stoverij’) is available almost everywhere as is ‘Waterzooi’, a local stew originally made from freshwater fish caught in the rivers and creeks of Ghent, but nowadays often made with chicken instead of fish.

Nearby the faculty

<table>
<thead>
<tr>
<th>Restaurant</th>
<th>Address</th>
<th>Phone</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Capella</td>
<td>Belgian - Godshuizenlaan 33 – 09/233.77.76 - <a href="http://www.acapella-gent.be">www.acapella-gent.be</a></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Den Hopduvel</td>
<td>Belgian – Rokerelstraat 10 – 09/225.37.29</td>
<td>$</td>
<td></td>
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<tr>
<td>De Frietketel</td>
<td>Snack &amp; Belgian fries - Papegaaistraat 89 - 09/329.40.22</td>
<td>$</td>
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The city centre

<table>
<thead>
<tr>
<th>Restaurant</th>
<th>Address</th>
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<th>Website</th>
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<tbody>
<tr>
<td>Belga Queen</td>
<td>Belgian - Graslei 10 – 09/280.01.00 - <a href="http://www.belgaqueen.be">www.belgaqueen.be</a></td>
<td>$$$$</td>
<td></td>
</tr>
<tr>
<td>Coeur d’Artichaut</td>
<td>Mediterrean &amp; Oriental - Onderbergen 6 – 09/225.33.18 - <a href="http://www.artichaut.be">www.artichaut.be</a></td>
<td>$$$$</td>
<td></td>
</tr>
<tr>
<td>Bij den wijzen en den Zot</td>
<td>Belgian &amp; French– Hertogstraat 42 - 09/223.42.30 - <a href="http://www.bijdenwijzenendenzot.be">www.bijdenwijzenendenzot.be</a></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>De Gekroonde Hoofden</td>
<td>Belgian &amp; Grill (spareribs) – Burgstraat 4 – 09/233.37.74 - <a href="http://www.degekroondehoofden.be">www.degekroondehoofden.be</a></td>
<td>$</td>
<td></td>
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<tr>
<td>De Graslei</td>
<td>Belgian &amp; French – Graslei 7 – 09/225.51.47 - <a href="http://www.restaurantdegraslei.be">www.restaurantdegraslei.be</a></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Faim de toi</td>
<td>International &amp; Fusion – Belfortstraat 10 – 09/223.63.93 - <a href="http://www.faimdetoi.be">www.faimdetoi.be</a></td>
<td>$$$$</td>
<td></td>
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<tr>
<td>Kastart</td>
<td>Pasta – Onderbergen 42 – 09/224.36.27 - newsites.resto.com/dekastart</td>
<td>$</td>
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<tr>
<td>’t Oud Clooster</td>
<td>Belgian – Zwarte Zusterstraat 5 - 09/233.78.02</td>
<td>$</td>
<td></td>
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<tr>
<td>Pakhuis</td>
<td>Brasserie – Schuurkenstraat 4 – 09/223.55.55 - <a href="http://www.pakhuis.be">www.pakhuis.be</a></td>
<td>$$$</td>
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Go veggie

<table>
<thead>
<tr>
<th>Restaurant</th>
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Note. $ = -€ 25, $$ = ± € 30 , $$$ = ± € 40
**PROGRAM AT A GLANCE**

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>Thursday 13th: Opening day</td>
<td>Aula, Volderstraat</td>
<td>8.30-9.45</td>
<td>Ongoing Registration</td>
</tr>
<tr>
<td>10.00-13.00</td>
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<td>Welcome speech</td>
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<tr>
<td>13.00-14.00</td>
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<td>12.25-14.00</td>
<td>Plenary Talk 1 (W. Grolnick - R. Vallerand)</td>
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<tr>
<td>14.00-15.40</td>
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<td>14.00-15.30</td>
<td>Plenary Talk 2 (M. Gagné - G. Williams)</td>
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<tr>
<td>15.40-16.15</td>
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<td>16.15-18.00</td>
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<td>Opening Talk R. Ryan &amp; E. Deci</td>
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<tr>
<td>18.00-19.30</td>
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<td>19.30-</td>
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<td>19.30-</td>
<td>Dinner on own</td>
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<tr>
<td>Friday 14th: Theoretical day</td>
<td>Faculty Buildings, Henri Dunantlaan 2</td>
<td>8.30-9.45</td>
<td>Sessions 1A-1E</td>
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<tr>
<td>9.55-10.45</td>
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<td>Plenary 3A (A. Assor - H. Hodgins)</td>
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<td>10.45-11.10</td>
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<td>11.10-12.25</td>
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<td>11.10-12.25</td>
<td>Poster Session A &amp; Lunch</td>
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<td>12.25-14.00</td>
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<td>12.25-14.00</td>
<td>Symposium 1A: Autonomy support</td>
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<td>14.00-15.30</td>
<td>Symposium 1B: Goal contents</td>
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<td>15.45-16.45</td>
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<td>16.45-18.00</td>
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<td>Sessions 3A-3C</td>
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<td>11.10-12.25</td>
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<td>11.10-12.25</td>
<td>Poster Session B &amp; Lunch</td>
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<td>12.25-14.00</td>
<td>Symposium 2A: Intervention studies</td>
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<td>14.00-15.30</td>
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<td>14.00-15.30</td>
<td>Symposium 2B: Need thwarting</td>
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<td>Sunday 16th: Closing day</td>
<td>Faculty Buildings, Henri Dunantlaan 2</td>
<td>8.30-10.00</td>
<td>Symposium 3A: Ploc Continuum</td>
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<td>10.00-10.25</td>
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<td>Symposium 3B: Unconscious processing</td>
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<td>10.25-11.40</td>
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<td>11.40-13.15</td>
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<td>Poster Session C &amp; Lunch</td>
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<td>13.15-14.15</td>
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<td>Summary comments and Q&amp;A with audience: E. Deci and R. Ryan</td>
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<td>14.15-</td>
<td>Depart or enjoy Gent</td>
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<tr>
<td></td>
<td></td>
<td>19.30-</td>
<td>Dinner and Party</td>
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# OVERVIEW OF THEMES COVERED IN POSTER SESSIONS

The posters are grouped by theme. In the table below you can see which themes are covered on each of the conference days (Friday – Saturday – Sunday).

<table>
<thead>
<tr>
<th>Theme</th>
<th>Friday 14&lt;sup&gt;th&lt;/sup&gt; (12.25-14.00)</th>
<th>Saturday 15&lt;sup&gt;th&lt;/sup&gt; (12.25-14.00)</th>
<th>Sunday 16&lt;sup&gt;th&lt;/sup&gt; (11.40-13.15)</th>
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<td>Experiments on Intrinsic Motivation</td>
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Thursday, MAY 13\textsuperscript{TH}: OPENING DAY (Aula)

**GENERAL OVERVIEW**

10:00-12:00
Registration & Check-In
Entrance Hall of Aula

13:00-14:00
Welcome Speech
Maarten Vansteenkiste & Bart Soenens
_Ghent University_  
Aula
Welcome & Conference Orientation

14:00-14:50
Plenary Talk 1  
_Aula_

14:00-14:25
Wendy Grolnick
_Clar University_
Context in Action: Enacting Autonomy Support in Homes and Classrooms

14:25-14:50
Robert J. Vallerand
_University du Québec à Montréal_
Optimal functioning in society: The role of passion

14:50-15:40
Plenary Talk 2  
_Aula_

15:50-15:15
Marylène Gagné
_Concordia University_
Testing a motivational leadership training program

15:15-15:40
Geoffrey Williams
_University of Rochester_
Self-determination theory and health behavior

15:40-16:15
Coffee Break

16:15-18:00
Plenary Address
Richard Ryan & Edward Deci
_University of Rochester_  
Aula

18:00-19:30
Reception, Meet & Greet  
_Peristilium_
DETAILED OVERVIEW

PLENARY TALKS

PLENARY TALK 1
Contribution 1

Context in Action: Enacting autonomy support in homes and classrooms
Name: Wendy Grolnick
Organization: Clark University, USA
Email: WGrolnick@clarku.edu

Abstract:
There is no doubt that the autonomy supportive versus controlling nature of environments makes a key contribution to motivation and adjustment across a range of domains. The provision of autonomy support by parents, teachers, physicians, and managers has been associated with self-regulation and well-being in children, students, patients and subordinates, respectively. One key goal in studies of autonomy support is then to identify what individuals are doing in autonomy supportive contexts that translates into the experience of autonomy. This is crucial so that our research can result in concrete recommendations to enhance facilitative contexts. This presentation discusses the usefulness of an Ecocultural Perspective (Weisner, 1984; 1997) which postulates that families are embedded within a larger social context, are flexible systems, and that there are multiple pathways through which families may meet children’s needs (Tseng et al., 2002). It will provide data from my own study of 200 families in which we are examining how parents “do” structure within their day to day lives in ways that support versus undermine children’s autonomy. It will include relevant work by others, for example, Reeve and Jang, in classrooms. In addition, our own work in Ghana showing that different “autonomy supportive” practices are experienced differently in the US and Ghana will be used to illustrate the importance of an ecocultural perspective.

Contribution 2

Optimal functioning in society: The role of passion
Name: Robert J. Vallerand
Organization: Université du Québec à Montréal, Canada
Email: vallerand.robert_j@uqam.ca

Abstract:
Recently, Vallerand and his colleagues (2003) have proposed a new conceptualization of passion. Passion is defined as a strong inclination or desire for a self-defining activity that we love, value, and spend a considerable amount of time on. Two types of passion are proposed: a harmonious and an obsessive passion. Obsessive passion is involved when people feel that they can’t help themselves and have to surrender to their desire to engage in the passionate activity. It is as if the activity controlled the person. Obsessive passion results from a controlled internalization (Deci & Ryan, 2000) of the activity in the person’s identity. On the other hand, harmonious passion refers to a strong inclination for the activity that nevertheless remains under the person’s control. The person can choose when to and when not to engage in the activity, thus preventing conflict from arising between the passionate activity and other life activities. Harmonious passion results from an autonomous internalization of the activity in identity. In this address, I review research that reveals that harmonious passion plays an important contributory role in the experience of Optimal Functioning in Society (OFS) defines as psychological, physical and relational well-being, as well as optimal performance and a positive contribution to society. Although obsessive passion may at times positively contribute to some elements of OFS, its effects are often negative. Implications of these findings for the concept of OFS and directions for future research are proposed.
PLENARY TALK 2

Contribution 1
Testing a motivational leadership training program
Name: Marylène Gagné
Organization: Concordia University, Canada
Email: mgagne@jmsb.concordia.ca

Abstract:
A three-day Motivational Leadership Training Program was developed based on the theory of transformational leadership and self-determination theory. It was tested in several organisations, using a pre-test, training, post-test design. Managers and their subordinates completed the pre and post-tests surveys. Results show that the training significantly influenced self-perceptions and other perceptions of leadership behavior and employee motivation.

Contribution 2
Self-determination theory and health behavior
Name: Geoffrey Williams
Organization: University of Rochester, USA
Email: geoffrey_williams@urmc.rochester.edu

Abstract:
Self-Determination Theory based interventions have been tested through randomized controlled studies in several health related domains. These include tobacco dependence treatment (x2), cholesterol, dental health, physical activity, weight loss, and medication adherence. Each intervention has demonstrated that internalization of autonomy and competence for the health outcomes, and the health outcomes themselves, were enhanced compared to control groups. The importance of these studies for SDT and health care will be discussed. The second, SDT based tobacco abstinence trial of 836 adult smokers will be presented briefly and 18- month outcomes will be discussed. Adult smokers randomized to three SDT based intensive interventions were compared for facilitating the maintenance of tobacco abstinence through internalization of autonomy and perceived competence. The primary outcomes are 18-month prolonged abstinence from tobacco post randomization. Finally, a case for the relevance of SDT to studies of health behavior and its change will be discussed. The discussion will touch on the rationale for assessing autonomy in all health studies, the use of a free choice period in study designs assessing maintenance of change, and issues related to autonomy and measurement of adherence outcomes.
PLENARY ADDRESS

Name: Richard M. Ryan & Edward L. Deci
Organization: University of Rochester, USA
Email: ryan@psych.rochester.edu; deci@psych.rochester.edu

Abstract:
The presenters will provide an overview of the ongoing development and current state of self-determination theory (SDT). The joint talk will include a discussion of the organismic dialectical meta-theory and philosophical assumptions that underlie the theory, along with the empirical and theoretical development of the five mini-theories that constitute the core of SDT—cognitive evaluation theory, organismic integration theory, causality orientations theory, basic psychological needs theory, and goal content theory. Various new directions in basic research will be discussed, with examples given to highlight these directions. The application of SDT in a wide range of life’s domains will be discussed, with an emphasis being placed on ways to enhance performance, maintain high-quality relationships, change toward a healthier life-style, and attain greater psychological well-being.
Friday, MAY 14TH: THEORETICAL DAY (Faculty buildings)

GENERAL OVERVIEW

7:45-8:30
Registration
Entrance Hall of Faculty Building

8:30-9:45
Session 1

Session 1A: On the importance of psychological needs: Behavioral responses, well-being, and virtual worlds
Chair: Heather Patrick
Auditorium 2

Nikos Chatzisarantis
When small losses loom larger than large gains

Bart Duriez
Do we have innate needs and what if these are (not) met?

Scott Rigby
The virtual satisfaction of real psychological needs

Session 1B: Enhancing emotional experience and self-determination in the classroom: Internal resources and social supports
Chair: Kirk Warren Brown
Room 1B

Ying Hwa Kee
Higher enjoyment among mindful learners in a self-controlled motor learning task

Sonja Bieg
The effects of classroom conditions on learning emotions and self-determined motivation in junior high school students

Doris Lewalter
Self-determined motivation in mathematic classes – a matter of what

Session 1C: The neural and hormonal correlates of motivation and basic needs satisfaction
Chair: Luc Pelletier
Auditorium 1

Kou Murayama
Neural correlates of undermining effect

Eleanor Quested
Hormonal and emotional responses to performance stress: The role of psychological need satisfaction

Woogul Lee
Neural circuitries of intrinsic motivation and incentive motivation
Session 1D: Combining Achievement Goal Theory and SDT  
Chair: Willy Lens  
Auditorium 4

Lennia Matos  
Using Self-Determination Theory and Achievement Goal Theory to explain students’ learning strategies and affect

Age Diseth  
Achievement goals, basic need support, life satisfaction and academic achievement among elementary school students

Liat Levontin  
The basic needs as antecedents of achievement goals

Aikaterini Michou  
Autonomous and controlling reasons for pursuing achievement goals and their relation to self-regulated learning

Session 1E: Causality orientations and economic cooperation, workplace flexibility, and education process  
Chair: Gaëtan Losier  
Auditorium 3

Maria Sakalaki  
The negative correlation of defection and unfairness with autonomy and well-being

Rodolph Colle  
Flexible schedules and stress: The role of self-determination feeling

Elena Rassskzova  
The role of causality orientations in the choice, realization, and spontaneous change of task in education process

9:55-10:45  
Plenary Talk 3

Plenary Talk 3A  
Auditorium 2  
9:55-10:20  
Avi Assor  
*Ben-Gurion University of the Negev*

Two under-emphasized aspects of autonomy support: Fostering reflective value/goal exploration and inner valuing

10:20-10:45  
Holley Hodgins  
*Skidmore College*

Dividing the social world into ‘Us’ and ‘Them’: An implicit cognitive process related to motivation and threat

Plenary Talk 3B  
Auditorium 1  
9:55-10:20  
Valery Chirkov  
*University of Saskatchewan*

Human autonomy and optimal functioning in a cross-cultural perspective: A review of the self-determination research and theoretical contributions
10:20-10:45  
Kirk Warren Brown  
*Virginia Commonwealth University*  
Mindfulness and the integration of bright and dark sides of the human psyche

10:45-11:10  
Coffee Break  
Restaurant

11:10-12:25  
Session 2

Session 2A: Basic psychological need satisfaction in diverse life domains  
Chair: Nikos Ntoumanis  
Auditorium 1

Valeria Negovan  
University students’ involvement in volunteering activities, basic psychological needs, and subjective and social well-being

Emily Oliver  
Associations between the functional significance of self-talk, need satisfaction, and athletes’ training behaviors

Nathalie Houlfort  
Teachers’ occupational stress factors and burnout: The role of need satisfaction

Session 2B: Emotions and emotion regulation  
Chair: Wendy Grolnick  
Auditorium 4

Leah Borovoi  
The influence of emotional regulation style on performance in Emotional Stroop task with facial expressions and emotional words

Isabelle Green-Demers  
The influence of the leadership style of teachers, parents, and friends on self-conscious emotions and high school motivation

Catalin Mamali  
Autonomy and crucial experiences: Self-regulation in autobiographical documents of Franklin, Gandhi, and Thoreau

Session 2C: Philosophical approaches to SDT  
Chair: Richard Ryan  
Auditorium 3

Stephanie Arnaud  
Humanistic management and self-determination theory: The impact of the perception of work supervision on employees’ self-regulated motivation: An empirical French study

Roni Aviram  
The original humanistic view of self-fulfillment: basic assumptions and relation to SDT

Hope May  
The fundamental need of virtue theory: Self-determination theory
Session 2D: Does everybody benefit from autonomy-support?
Chair: Maarten Vansteenkiste
Auditorium 2

Bieke De Fraine
Offering an autonomy-supportive environment in kindergarten: Equally effective for all children?

Athanasios Mouratidis
Class-to-class variation in vitality and intrinsic motivation in physical education as a function of the synergistic interaction between need-supportive teaching and pupils’ motivational orientations

Jian Zhang
Time pressure and creative personality: Effects on employees’ creativity

Session 2E: What determines the choice between intrinsic and extrinsic goals?
Chair: Frederick Grouzet
Room 1B

Tamara Gordeeva
Intrinsic and extrinsic goals and their relationship to well-being

Leslie Podlog
The effects of intrinsic versus extrinsic goal promotion on the subjective experience of a leisure time activity

Lilach Sagiv
Convincing yourself to care about others: Increasing benevolence values through self-persuasion

12:25-14:00
LUNCH
Poster Session A
Restaurant
Around Auditorium 2

A1: Basic psychological needs (1-9)
A2: Goals, values, and aspirations (10-19)
A3: Internalization and self-regulatory styles (20-29)
A4: Causality orientations (30-35)
A5: Motivation across cultures (36-41)
1st floor

A6: Education (42-56)
A7: Experiments on intrinsic motivation (57-67)
A8: Self and self-esteem (68-71)
A9: Mindfulness (72-77)
A10: Psychological health (78-91)
2nd floor

14:00-15:30
Invited Symposia 1
Symposium 1A: Autonomy support: Critical elements and differentiation from other contextual supports
Chair: Avi Assor
Auditorium 2
Bart Soenens
Contrasting autonomy-support with the promotion of independence
Mireille Joussemet
Autonomy support at home: The potential benefits of a broad and concrete operationalization
Hyungshim Jang
Differentiating autonomy support from structure and integrating the two in the learning context
Nikos Ntoumanis
Perceptions of coaching interpersonal style, psychological needs, and psychological well-being in competitive athletes

Symposium 1B: The Fifth “Mini-theory” of SDT: Intrinsic and Extrinsic Goal Contents in Theory, Research, and Application
Chair: Richard Ryan
Auditorium 1
Frederick Grouzet
On the origin of goal content
Maarten Vansteenkiste
Understanding the effects of intrinsic and extrinsic goals on performance, identity integration, and bulimia
Simon Sebire
A programme of work exploring the “what” of exercise goals

15:30-15:45
Coffee Break
Restaurant

15:45-16:45
Workshops
Brainstorm
Antecedents of autonomy support (G. Roth)
Room 1A
Brainstorm
Development of intrinsic and extrinsic goals (F. Grouzet)
Room 1B
Brainstorm
Work & organizations (M. Gagné & J. Forest)
Room 1C
Brainstorm
Integrated regulation (L. Pelletier)
Room 2A
Teaching
Parenting (M. Joussemet, W. Grolnick, G. Mageau, & A. Assor)
Room 2B
Teaching
SDT-based interventions in health care (H. Patrick & G. Williams)
   Room 2C
   Teaching
Sport (N. Ntoumanis & R. Vallerand)
   Room 2D
16:45-18:00
   Session 3

Session 3A: Qualitative studies on need satisfaction
   Chair: David Markland
   Auditorium 1
   Remco Polman
   Role of self-determined motivation in rehabilitating professional rugby union athletes from ACL injury
   Oliver Robinson
   Retirement and intrinsic need satisfaction: Understanding well-being trajectories in later life
   Krzysztof Szadejko
   Psychological needs fulfillment: A qualitative analysis

Session 3B: Openness versus defensiveness
   Chair: Pedro Teixeira
   Room 1B
   Suzanne Gurland
   Interpersonal behavior depends on targets’ self-regulation
   Daniela Kayser
   Chronic death-thoughts, worldview defense, autonomy and self-regulation
   Bart Neyrinck
   Autonomous and controlled regulations for religious behaviors: Examining their correlates and antecedents

Session 3C: The dynamics of self-determined motivation in different cultural settings
   Chair: Valery Chirkov
   Auditorium 2
   Haya Kaplan
   The effects of autonomy-supportive or suppressive teaching on Bedouin students’ learning experience: Evidence from a collectivist society
   Kimberly Noels
   Motivation to learn English across cultural contexts
   Panagiotis Rentzelas
   The effects of individual differences in collectivist and individualist orientations on the relationship between autonomous motivation and behavioural intentions

Dinner on own
20:30-????
   Continued brainstorming in local pubs
   See list of pubs in the touristic section
FOURTH INTERNATIONAL CONFERENCE ON SELF-DETERMINATION THEORY

Friday, MAY 14TH: THEORETICAL DAY (Faculty buildings)

DETAILED OVERVIEW

SESSIONS

SESSION 1A
On the importance of psychological needs: Behavioral responses, well-being, and virtual worlds
Chair: Heather Patrick

Contribution 1
When small losses do not loom larger than small gains: Effects of contextual autonomy support on behavioral responses to small losses and small gains

Name: Nikos Chatzisarantis
Organization: National Institute of Education, Singapore
Email: nikos.chatzisarantis@nie.edu.sg
Co-authors: Martin Hagger

Abstract:
Based on tenets of self-determination theory, we examined the hypothesis that autonomy support would moderate loss aversion effects such that responses to small losses would be stronger relative to responses to small gains in contexts not supporting the psychological need of autonomy and less so in contexts supporting the psychological need of autonomy. In accordance with this hypothesis, Experiment 1 documented that while behavioral responses to small losses loomed larger than behavioral responses to small gains in contexts that were not conducive to autonomy support, the difference between behavioral responses to small losses and behavioral responses to small gains were less pronounced in contexts supporting the psychological need of autonomy. Experiment 2 adopted a choice paradigm to examine preferences for options that were associated with benefits of intrinsic or extrinsic content. Results from this experiment documented that participants preferred options associated with intrinsic benefits over options that were associated with extrinsic benefits but only when benefits implied a small gain. Participants’ choices were indifferent when options implied an intermediate or large gain. Results of the present study support the conclusion that contextual autonomy support defines a boundary condition of the loss aversion hypothesis.

Contribution 2
Do we have innate needs and what if these are (not) met?

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Abstract:
Self-Determination Theory (SDT) proposes three basic psychological needs that need to be satisfied in order for people to feel well and be able to self-actualize: The needs for autonomy, belongingness, and competence. The first goal of the present research is to zoom in on these needs in order to answer the question whether satisfaction of these needs is essential for the well-being of everyone, or, alternatively, only for the well-being of those who actually attach importance to these needs. The second goal was to examine whether other psychological needs would behave in the same manner. For this purpose, three seemingly important other psychological needs were identified: The needs for power, structure, and physical safety. Does satisfaction of these needs add to the prediction of
well-being over and above satisfaction of the needs proposed by SDT? Or do they do so only for people who attach importance to them? The third goal was to examine what happens if the needs proposed by SDT are (not) met. Does this lead to increases or decreases in the importance attached to them? Does need frustration lead to increases in the importance attached to needs that are considered by SDT to be compensatory rather than basic? And does attaching importance to one’s basic needs predict over-time changes in need satisfaction? These issues are examined in a 3-wave longitudinal sample of early adults (N=318) and a 2-wave longitudinal sample of psychology students (N=410).

Contribution 3
The virtual satisfaction of real psychological needs: A review of research on virtual worlds and their intrinsic satisfactions

Name: Scott Rigby
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Co-authors: Richard Ryan; Andrew Przybylski

Abstract:
Hundreds of millions of people worldwide spend a good portion of their lives “inhabiting” virtual worlds and video games. Unlike traditional media, these environments provide myriad opportunities for active participation, interpersonal interaction, and the pursuit of short and long-term goals and challenges. Increasingly, these virtual environments are being used in many areas of education, training, health care, and business, alongside their more longstanding presence as leisure activities.

While the widespread appeal and beloved worldwide participation in virtual worlds has been noted by many, the motivational dynamics of these environments have not been systematically studied or well-understood. As a result, controversies have naturally emerged, including concerns over their “addictive” qualities, the appeal and impact of violent games, and more fundamentally whether or not virtual experiences can be meaningful, or simply diversions or facsimiles of “real” experiences.

Self-determination theory (SDT) provides a framework for understanding the dynamics of virtual worlds more precisely, helping to address these issues and the “mechanics” of need satisfaction within them. The authors have conducted a series of applied studies developing the “Player Experience of Need Satisfaction (PENS) model,” and identifying the mechanics of virtual worlds that facilitate the satisfaction of intrinsic needs for competence, autonomy, and relatedness. This lecture will review research on the development and application of PENS within virtual worlds, looking at the implications for both practical (i.e. optimal development) and controversial issues (e.g. violence, over-involvement). Implications of this research for using virtual worlds to better facilitate genuine need satisfaction will be discussed, as well as the possibilities for using virtual worlds as a “motivational lab” for basic science research in motivation and emotion.
SESSION 1B
Enhancing emotional experience and self-determination in the classroom: Internal resources and social supports
Chair: Kirk Warren Brown

Contribution 1
Higher enjoyment among mindful learners in a self-controlled motor learning task
Name: Ying Hwa Kee
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Co-authors: Yeou-Teh Liu

Abstract:
Intrinsic motivation in learning has always been an important issue for educationalists. This study examined whether learners of varying dispositional mindfulness would report differing enjoyment as they learn a novel motor task. All 32 participants recruited were given the autonomy to regulate their task difficulty from trial to trial during the learning task. Participants attended 5 days of learning sessions, with each session comprising of 50 learning trials. At the end of each session, the enjoyment subscale of the IMI was administered to assess post-activity enjoyment. The participants were divided into the higher and lower mindfulness group arbitrarily based on a median-split of their MAAS scores. Results suggest that the high mindfulness group reported higher enjoyment than the lower mindfulness group across the five days. Specifically, Mann-Whitney test shows that the higher mindfulness group (Mdn =5.57) has significantly higher enjoyment scores than the lower mindfulness group (Mdn = 4.71) on Day 3 (U=66.5, z=-2.32, p>.05, r=.41). For Day 4, Mann-Whitney test also shows that the higher mindfulness group (Mdn =6.00) has significantly higher enjoyment scores than the group with lower mindfulness (Mdn = 4.79) (U=54, z=-2.79, p>.05, r=.49). Though the differences between the two groups did not reach statistical significance for the rest of the days, their respective effect sizes ranged between .19 to .29, with the higher mindfulness group reporting slightly higher enjoyment. The present findings provide preliminary support for the benefits of mindfulness in motor skill learning, at least in terms of enhancing intrinsic motivation and enjoyment.

Contribution 2
The effects of classroom conditions on learning emotions and self-determined motivation in junior high school students
Name: Sonja Bieg
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Co-authors: Waldemar Mittag

Abstract:
According to Self-Determination Theory satisfaction of three innate psychological needs (autonomy, competence, and social relatedness) is important for optimal human functioning and well-being. The theory further postulates that four different types of motivation (external, introjected, identified and intrinsic) are differentially associated with the quality of behavior and well-being. The present study investigated the relation between classroom conditions and learning emotions on the one side and students’ self-determined motivation on the other side. Data from nearly 1500 eighth grade students from three different German school types were gathered using questionnaires. Self-reports included scales measuring students’ experiences during the lessons concerning autonomy support, daily relevance, teachers’ care and perceived teachers reference norm orientation, students’ positive and negative learning emotions, and their motivational self-regulation. A structural equation model supports the assumption that classroom conditions have an effect on learning emotions and they, in turn, support autonomous motivation. However there are also direct effects from classroom conditions on motivational self-regulation. The discussion focuses on the interpretation and implications of these data to promote self-determined motivation and well-being in school.
Contribution 3
Self-determined motivation in mathematic classes – A matter of what: Individual or collective emotional experiences or cognitive activation?
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Co-authors: Ariane S. Willems

Abstract:
Research results on analysing the facilitation of students’ self-determined motivation in mathematics instruction show that the degree of motivation is relatively low and decreases during the school career. Major reasons for this are located in the students’ perceived emotional experiences and the quality of instruction. Nonetheless, the functional relationship between self-determined motivation and both the students’ emotional experiences and the perceived quality of instruction in mathematics is not yet fully explained, especially when both concepts are analysed simultaneously. The aim of this contribution is to shed light on this interrelation. Concerning the students’ emotional experiences, we distinguished between the experience of competence, two different facets of the experience of autonomy and two facets of the experience of relatedness. Regarding the quality of instruction, we investigated a concept that has only recently been established in empirical research on learning mathematics: a cognitively activating instruction. Especially when taking into account the students’ emotional experiences, the function of a cognitively activating instruction for self-determined motivation is not yet understood. To assess this question, we conducted a questionnaire study with N = 951 8th grade students from N = 38 classes surveying the participants immediately after one particular math lesson, controlling for the topic dealt with in class. The results obtained via HLM indicate that the students’ individual emotional experiences account for a considerable amount of self-determined motivation, whereas contextual factors such as collective emotional experiences and the level of cognitive activation do not contribute to the explanation of self-determined motivation in mathematics instruction.

SESSION 1C
The neural and hormonal correlates of motivation and basic needs satisfaction
Chair: Luc Pelletier

Contribution 1
Neural correlates of undermining effect
Name: Kou Murayama
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Co-authors: Madoka Matsumoto; Keise Izuma; Kenji Matsumoto

Abstract:
Research on motivation in neuroscience has focused on the motivation instigated by extrinsic reward (i.e., monetary or food reward). In contrast, self-determination theory indicates that extrinsic reward undermines (rather than enhances) participant’s intrinsic motivation (Deci, Koestner, and Ryan, 1999). In this study, we sought to identify the brain areas underlying this undermining process using functional magnetic resonance imaging (fMRI). Participants performed a stop-watch task receiving either performance-contingent reward or (unexpected) task-contingent reward, and their brain activity before and after the reward provision was examined. Behavioral results showed that participants in performance-contingent reward condition were less motivated to voluntarily engage in the task when the reward is no longer expected. Brain imaging results indicated that participants in performance-contingent reward condition revealed a substantial drop in the activity in the areas related to reward and value processing (e.g., ventral striatum and orbito-frontal cortex) whereas participants in task-contingent reward condition showed heightened right lateral prefrontal cortex activity. Right lateral prefrontal activation also predicted participants’ voluntary engagement in the task.
Contribution 2
Hormonal and emotional responses to performance stress: The role of psychological need satisfaction
Name: Eleanor Quested
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Co-authors: Jos Bosch; Victoria E. Burns; Jennifer Cumming; Nikos Ntoumanis; Joan L. Duda

Abstract:
Basic psychological need satisfaction (BPNS) is assumed to hold implications for the experiencing of optimal functioning and healthy engagement (Deci & Ryan, 2000; Ryan, 1995). In terms of biological responses relevant to well- or ill-being, hormonal stress responses may have potentially detrimental long term health implications (Miller et al, 2007). Grounded in the self-determination theory framework (Deci & Ryan, 2000) this study examined the role of BPNS in the manifestation of dancers’ threat and challenge appraisals and hormonal and anxiety responses to performance stress. Fifty two (35 male, 17 female, Mean age = 19.37 years, SD = 1.85) vocational dancers reported their degree of BPNS one month prior to a public solo performance. Two hours before the solo, the dancers reported their threat and challenge appraisals regarding the approaching performance. Fifteen minutes prior, and 15, 30, 45 and 60 minutes post-performance, the dancers’ salivary cortisol and anxiety (intensity and interpretation) were measured. Data were analyzed via multilevel modeling. BPNS negatively predicted the dancers’ cortisol response. The relationship between BPNS and cortisol was significantly mediated by challenge appraisals. Threat appraisals significantly mediated the association between BPNS and intensity of cognitive anxiety symptoms. Furthermore, the dancers’ tendency to interpret anxiety symptoms as facilitative during the performance period was positively predicted by BPNS. Fostering BPNS in performance-related situations may encourage emotional and hormonal homeostasis when performers face demanding performance scenarios. Future research will examine the social-psychological and motivational processes predictive of variability in other markers of metabolic and immune function, (e.g., Secretory Immunoglobulin-A).

Contribution 3
Neural circuitries of intrinsic motivation and incentive motivation
Name: Woogul Lee
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Co-authors: Johnmarshall Reeve; Yiqun Xue; Jinhu Xiong

Abstract:
Many social psychologists posit that intrinsic motivation generated by personal interests and spontaneous satisfactions is qualitatively different from extrinsic (or incentive) motivation generated by external compensations. However, the contemporary neural understanding of motivation is almost exclusively based on the neural mechanisms of incentive motivation. This study examined neural circuitries of intrinsic motivation both to identify the neural bases of intrinsic motivation and to distinguish these neural substrates from those of incentive motivation. Results showed that the two types of motivation did share brain activations related to reward processing in the ventral striatum, the right dorsolateral prefrontal cortex (DLPFC), and the insular cortex. Results also showed that intrinsic motivation solely recruited neural activities of the ventral striatum and the insular cortex, which are related to objective reward processing and automatic emotion, while incentive motivation more recruited neural activities of the ventromedial prefrontal cortex (VMPFC) and the posterior cingulate cortex (PCC), which are related to subjective reward processing and higher-order (social) emotion. These results newly demonstrate the neural bases of intrinsic motivation and distinguish them from the well-known neural circuitries of incentive motivation.
SESSION 1D
Combining Achievement Goal Theory and Self-Determination Theory
Chair: Willy Lens

Contribution 1
Using Self-Determination Theory and Achievement Goal Theory to explain students’ learning strategies and affect
Name: Lennia Matos
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Co-authors: Willy Lens; Rafael Gargurevich

Abstract:
Self-Determination Theory and Achievement Goal theory are very relevant theoretical frameworks to explain students’ motivation in education. In Peru however, no research has studied them together. Thus, we explored the effects of autonomous and controlled regulation/motivation as well as the effects of mastery approach, performance approach and performance avoidance goals on students’ learning strategies (information processing and test strategies) and positive and negative affect. Our sample was composed of 488 first year university students. The used instruments showed to be valid and reliable. Separate regression analyses showed that, as expected, autonomous regulation had a positive and controlled regulation a negative effect on learning strategies and positive affect. When studying these variables together using Structural Equation Modeling Analysis (SEM) results showed that these independent variables had indeed a differential effect on the dependent variables. Autonomous regulation had a positive effect on positive affect, while controlled regulation had positive effects on negative affect. At the same time, mastery approach goals had a positive effect on test strategies and information processing. Performance goals were not significantly related to the outcome variables. We found no evidence for a moderating role of autonomous versus controlled motivation. These results may lead us to think that different motivational constructs may serve to explain cognitive and affective outcomes in learning contexts.

Contribution 2
Achievement goals, basic need support, life satisfaction and academic achievement among elementary school students
Name: Åge Diseth
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Co-authors: Anne Grete Danielsen; Oddrun Samdal

Abstract:
Achievement goals (mastery, performance-approach, performance-avoidance), basic need support of competence, autonomy and relatedness, life satisfaction, and academic achievement were investigated in a sample of 240 Norwegian 8th and 10th grade students in order to explore the interrelations between these variables. Preliminary results show that although life satisfaction and academic achievement were only weakly related (positive correlation), both of these variables shared the same pattern of correlations with the students’ perceived support for all basic needs (competence, autonomy, relatedness) and with perceived mastery classroom goals. Life satisfaction and academic achievement were, however, unrelated to perceived autonomy and relatedness classroom goals. All of the basic needs (competence, autonomy, relatedness) were moderately correlated with mastery classroom goals (r = between .44 and .52), but weakly correlated with performance-approach goals and unrelated to performance avoidance goals. Suggestions for further analyses as well as theoretical and practical implications will be discussed.
CONTRIBUTION 3

The three basic needs as antecedents of achievement goals

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Abstract:
Central to self-determination theory is the concept of basic psychological needs. According to the theory, the needs for competence, autonomy, and relatedness must be ongoingly satisfied for people to develop and function in healthy, optimal ways (Deci & Ryan, 2000). Thus, it is hypothesized that an optimal functioning in achievement situations involves the fulfillment of these three basic needs. However, achievement goal’s research is focused mainly on the fulfillment of the need for competence (e.g., Cury, Elliot, Da Fonseca, & Moller, 2006; Van Yperen, 2006, Elliot & Dweck, 2005). Only few studies were conducted on relatedness needs and achievement goals (e.g., Pomerantz, Grolnick, & Price, 2005). In a series of three studies we show that relatedness needs influence achievement goals. Study 1 (N=97) confirms that competence and autonomy needs are positive predictors of mastery goals and negative predictors of performance-avoidance goals but also shows the these needs are not correlated with performance-approach goals. Relatedness needs are not correlated with mastery goals and are negative predictors of both performance-avoidance and performance approach goals. Study 2 (N=635) presents a new achievement goal, amity goal, the goal to increase relatedness, cooperate with others, develop and improve relations with others and help others to succeed, and it’s relations with the other three achievement goals. Finally, in Study 3 (N=178) we show that relatedness needs are positive predictors of amity goals. It is concluded that optimal functioning in achievement situations, in which all three basic needs are satisfied, involves both mastery and amity goals.

CONTRIBUTION 4

Autonomous and controlling reasons for pursuing achievement goals and their relation to self-regulated learning

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Co-authors: Athanasios Mouratidis; Maarten Vansteenkiste; Willy Lens

Abstract:
Mastery and performance achievement goals can be pursued for qualitatively different reasons. In this study, we undertook the self-determination theory (SDT; Deci & Ryan, 2000) perspective and investigated whether students pursue mastery or performance-approach goals for autonomous or controlling reasons and if so, to what extent mastery and performance-approach goals and the reasons behind these goals are related to self-regulated learning (critical thinking, meta-cognitive and effort regulation). In a sample of 285 (42.7% males) middle school students, we found that students exhibited an overall autonomous (or controlled) motivational pattern independent of the specific achievement goal they may endorsed. Structural equation modeling (SEM) analysis showed that mastery goals were strongly and positively associated with autonomous reasons only, giving support to Deci & Ryan’s (2000) point that mastery goals and autonomous forms of regulation share common characteristics. In contrast, performance-approach goals were positively associated with both autonomous and controlling reasons providing evidence of the dual nature of performance-approach goals. When all the variables jointly considered, SEM analysis indicated that only mastery goals and autonomous reasons for pursuing achievement goals were positively associated with self-regulated learning, whereas performance-approach goals and controlled reasons were not. Separate regression analyses for each of the two achievement goals revealed that autonomous and controlling reasons for pursuing performance-approach goals were, respectively, positive and negative predictors of self-regulated learning strategies. Results are discussed within SDT (Deci & Ryan, 2000) framework and on the intersection between SDT and the revised achievement goal perspective (Elliot, 2005).
SESSION 1E
Causality orientations and economic cooperation, workplace flexibility, and education process
Chair: Gaëtan Losier

Contribution 1
The negative correlation of defection and unfairness with autonomy and well-being
Name: Maria Sakalaki
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Co-authors: Maria Sakalaki; Kyriaki Fousiani

Abstract:
The motivational specificities of cooperators versus defectors as well as their Psychological well-being is an interesting topic for social sciences especially since the recent world economic crisis was mainly originated by opportunistic and therefore defecting economic behaviour of some agents. This paper reports the results of three studies, which aimed to investigate the autonomy, control or impersonal orientation (Deci & Ryan, 1985a; 1985b) as well as the PWB (Ryff & Keyes, 1995; Ryff & Singer, 1998) of cooperators and defectors. The first two (with sample sizes of 193, 169) examined the correlation between cooperative/ fair versus defecting/ unfair attitudes (as measured by economic opportunism, with high scores indicating competitive, or unfair attitudes) with measures of autonomy, control, impersonal orientation and psychological well-being. Consistent with predictions, opportunism, that is defecting economic attitudes, was positively correlated with control (r=.27, p=<.001) and impersonal orientations (r=.19, p=<.01) and negatively correlated with autonomy (r=-.24, p=<.001) and psychological well-being (r=-.21, p=<.001 and r=.16, p=<.05 for Self-Actualization and Anxiety sub-scales respectively). Study three (n=61) showed that cooperative behavior in a $10 Trust game was negatively correlated with control orientation (r=-.27, p=<.05).

Contribution 2
Flexible schedules and stress: The role of self-determination feeling
Name: Rodolphe Colle
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Abstract:
The evidence base linking worker health to workplace flexibility remains weak (Grzywacz et al., 2008). The aim of this study is to improve understanding of the potential health benefit of promoting at work. This research concerns an initiative conducted by a small firm: flexible schedules were introduced, at the request of the employees, to help them to reduce work stress. A longitudinal case study, qualitative (20 interviews) and quantitative (N=150), was conducted. Employees were interviewed before the introduction of flexible schedules, three months later, and nine months later. The results found support for the negative relationship between schedule flexibility and work stress. However, no employee has changed his schedules: all of them have retained traditional work schedules when they perceived a lower level of stress. The mediating effect of self-determination feeling is highlighted by these results. The causality orientations theory provides a relevant theoretical basis to understand our findings. The employees were autonomy-oriented persons: they tended to locate causality inside the self, and sought out situations in which they could freely choose their schedules (Deci & Ryan, 1985). It was simply because they felt free to choose their schedules that employees have reduced their work stress. The implications of these findings for future research on self-determination need and causality orientation are discussed.
Contribution 3
The role of causality orientations in the choice, realization and spontaneous change of task in education process
Name: Elena Rasskazova
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Abstract:
The previous research has demonstrated the important role of autonomy in education process and self-regulation (Jang et al, 2009, Vansteenkiste et al, 2004, Deci et al, 2001). Our aim was to find out specific functions of different causality orientations at three self-regulation stages (choice, spontaneous change and realization of the task) in students. Participants and methods. Students of medical faculties (N=100) filled Russian versions of GCOS, Hardiness inventory, Self-efficacy scale. The students were asked to choose the type of their final reports in psychology course and explain their choice. There were two options: standard and creative. They could change their choice during the semester. At the end of the semester experts evaluated the quality and creativity of resulting reports. Results. At the choice stage autonomy orientation tended to be higher in students explaining their choice by interest compared to those providing impersonal and habitual explanations (p<0.1). Controlled orientation tended to be the highest in students explaining their choices habitually (p<0.1). High autonomy predicted better anticipation of future difficulties (p<0.05). The students who changed creative task to the standard one exhibited lower autonomy and higher impersonal orientation (p<0.05) than students who didn’t change their choice. The students who switched the standard task to the creative one didn’t differ from those who didn’t change their choice. Summary. Causal orientations play specific roles at the stages of task choosing, changing and realization.
PLENARY TALKS

PLENARY TALK 3A
Contribution 1
Two under-emphasized aspects of autonomy support: Fostering reflective value/goal exploration and inner valuing

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Abstract:
In their analyses of the concept of autonomy, various thinkers have distinguished between “negative” and “positive” definitions of autonomy (Berlin, 1969). Negative autonomy refers to the feeling that one has a choice and is not coerced to do things. Positive autonomy refers to the feeling that one has authentic values and goals which give direction to one’s life; these values serve as guiding criteria in important decisions and support a sense of meaning and coherence. While SDT-based research on autonomy-support has frequently examined the choice aspect, work on the support of authentic value formation realizaion is scarce. Therefore, the aim of the present talk is to present research on two components of autonomy support that promote the development of authentic direction-giving values and goals: (a) Fostering reflective exploration of goals and values and (b) Fostering the capacity/inclination for inner directed valuing process. While the first aspect is assumed to support the construction of authentic values and goals, the second aspect is assumed to support the capacity to withstand the difficulties involved in reflective formation of authentic values.

Studies 1, 2 and 3 focus on educational contexts and examine the contribution of support for value/goal exploration to perceived autonomy and engagement. Results show that value/goal exploration has a unique contribution to perceived autonomy and engagement above and beyond the contribution of choice-provision and relational support. Study 4 focuses on parents’ fostering of children’s capacity for inner directed valuing, and shows that it predicts increased capacity for identity exploration and integrative emotion exploration.

Contribution 2
Dividing the social world into ‘Us’ and ‘Them’: An implicit cognitive process related to motivation and threat

Name: Holley Hodgins
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Abstract:
Past research shows that autonomous motivation orientation causes lower threat response and aggression compared to controlled motivation orientation (Hodgins, Gottlieb, & Yacko, 2006; Hodgins, Weibust et al., in press; Weinstein, Hodgins, & Ostvik-White, 2010). Differences in defense and aggression have been interpreted as evidence that the orientations cause different thresholds for threat, with autonomous motivation leading to lower threat response relative to controlled (Hodgins, 2008; Hodgins & Knee, 2002). The current work examines an automatic cognitive process postulated to underlie differences in threat response and aggression under autonomous and controlled motivation. Specifically, it proposes that threat responses are associated with greater psychological distance between self and others, referred to as the ‘us-them divide’ (Tajfel, 1982). The work assumes that the us-them divide can be more or less cognitively accessible and therefore is measurable. Furthermore, we expected autonomous orientation to be associated with a smaller magnitude us-them divide relative to controlled orientation. Study 1 is a validation study providing evidence the us-them divide is measurable with a lexical decision task, and that larger us-them divide predicts seeing threat in ambiguous visual images. Study 2 shows that relative to controlled orientation, autonomous orientation predicts a lesser us-them divide. Additionally, the us-them divide predicts measures of hostility, need for relatedness, mood, and performance. In summary, the research shows, first, that the
The automatic tendency to divide the social world into ‘us’ and ‘them’ is measurable. Second, the automatic us-them divide is more pronounced among individuals with a controlled than autonomous motivation orientation. Lastly, a more accessible us-them divide predicts negative psychological consequences. Together, the studies point to an implicit cognitive process that can help explain previously documented differences in threat responses under autonomous and controlled motivations.

PLENARY TALK 3B

Contribution 1

Human autonomy and optimal functioning in a cross-cultural perspective: A review of the self-determination research and theoretical contributions

Name: Valery Chirkov
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Abstract:
In this presentation I will address never disappearing concerns about universality of human autonomy and its crucial importance for people’s optimal functioning and eudaimonic happiness across nations and cultures. I will review the most recent empirical research and theoretical contributions that support this thesis. The following topics will be discussed: autonomy and self-determination as a natural human propensity that requires the specialized brain to be executed; emergence of autonomy from potentiality to actuality can happen only within a symbolic-linguistic context; a person with developing autonomy and self-determination is involved into dialectical relationships with surrounding cultural environments; when human autonomy is fully developed an autonomous person becomes relatively independent from cultural influences and can overcome them; agentic autonomy and psychological freedom are absolutely necessary for people to be well and happy and this relations apply to all cultures. Empirical evidence from developmental, educational, health and other areas of psychology will be provided to support these and related ideas.

Contribution 2

Mindfulness and the integration of bright and dark sides of the human psyche

Name: Kirk Warren Brown
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Abstract:
Predominant contemporary theories of positive psychological functioning concern an appropriate structuring of thoughts about, and evaluations of, self, psychological experience, and behavior. Such approaches give primacy to the ego identity as a basis for the attainment and maintenance of well-being. Yet when rooted in such self-striving, in which there are psychological experiences to gain, maintain, and eliminate, people have an inherent vulnerability to discontent, anxiety, sadness, and other forms of suffering. An alternative approach to well-being, presented by organismic and related theories argues that integrative awareness – the inherent capacity to be receptively aware of thought patterns, emotions, and behavioral tendencies – permits more fully informed responses that can promote well-being, both by fostering positive psychological states and by facilitating adaptive responses to events and subjective experiences that threaten well-being. Correlational and experimental research from five recent studies with healthy adults will be presented to show that one form of integrative awareness, called mindfulness, conduces to more balanced affective states, encourages voluntary exposure to unpleasant or threatening events and experiences that has been shown to promote adaptive behavior and well-being, and facilitates a more deeply informed selection of behaviors that are consistent with basic psychological needs that sub-serve well-being. Emphasis will be placed on new evidence that mindfulness helps to counter the inherent vulnerability to suffering that arises when the ego identity is engaged. Together, this research aims to integrate our knowledge of the adaptive and maladaptive aspects of human nature into a wholistic understanding that will better promote human welfare.
SESSIONS

SESSION 2A
Basic psychological need satisfaction in diverse life domains
Chair: Nikos Ntoumanis

Contribution 1
University students’ involvement in volunteering activities, basic psychological needs and subjective and social well-being
Name: Valeria Negovan
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Abstract:
The purpose of this study is to investigate the relationships between the university students’ involvement in volunteering activities, basic psychological needs’ pattern and subjective and social well-being in a Romanian university students’ sample. This study has adopted a cross-sectional research strategy. The sample of the study comprised 600 university students, ages ranged from 18 to 58 years (M = 26.64, SD = 9.39). In order to collect the data several self-rating questionnaires were used (assessing variables such as the basic psychological needs, the subjective and social well-being). The main assumption of the research was that the university students’ involvement in the volunteering activities is associated with a specific basic psychological needs’ pattern, and differentiate their level of subjective and social well-being. The findings of the research can be grouped into two categories: one that relate to the differences between students’ subjective and social well-being and their perceptions of competence, autonomy and relatedness according to their involvement in volunteering activities and one that relate to the associations of need-constructs with subjective and social well-being. The results show that the relationship between subjective and social well-being and basic psychological needs is not linear (especially in the social context). As expected, the students that volunteered reported a higher level of basic psychological needs of autonomy and relatedness and were found to be more satisfied, happy and interested (with their life in general and with their life in the university environment) compared with the students that neither did.

Contribution 2
Associations between the functional significance of self-talk, need satisfaction, and athletes’ training behaviors
Name: Emily Oliver
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Co-authors: James Hardy; David Markland

Abstract:
Drawing on previous research (Oliver, Markland, Hardy, & Petherick, 2008), and the propositions of cognitive evaluation theory (Deci & Ryan, 1985), the present study adopts the position that self-talk represents an internal regulatory event that can be experienced as informational or controlling, with subsequent differential consequences for behavioral and affective outcomes. Behavioral consequences were assessed via athletes’ training behaviors. It was proposed that need support would influence the use of informational and controlling self-talk, which in turn would impact upon need satisfaction. Need satisfaction was hypothesized to predict training behaviors.
Post-training, 92 youth soccer players on full-time professional scholarships (Mage = 16.42, SD = .80) completed measures of perceived coaching support, need satisfaction, use of informational and controlling self-talk, and training behaviors, namely, effort, seeking information to improve, concentration, and negative behaviors. After establishing psychometric properties of the scales, significant direct and indirect effects were identified.
using partial least squares analysis. Need support positively predicted informational self-talk, and negatively predicted controlling self-talk. Informational self-talk mediated the relationship between need support and both autonomy and relatedness. Controlling self-talk was associated with impaired concentration, and increased negative behaviors. Relatedness positively predicted athletes’ effort and seeking information to improve during training. These findings provide promising initial evidence regarding the influence of intra-personal events on both need satisfaction and athletes’ training behaviors. They also highlight the importance of considering the functional significance of events to the individual.

Contribution 3

Teachers’ occupational stress factors and burnout: The role of need satisfaction

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Co-authors: Frédéric Sauvé

Abstract:
Teaching is often perceived as a high-risk profession. Indeed, teachers are subject to a particularly high level of stress on the job (e.g. Beer, 1992; Boyle, Borg, Falzon, & Baglioni, 1995; Griva & Joekes, 2003). Numerous factors have been identified in order to explain this situation. In the educational literature, five factors are commonly agreed on: workload, pupil behaviors, poor relationships with colleagues, superiors and parents. However, few researches have explained the occupational factors - psychological health relationship within a theoretical framework. In order to shed light into this matter, we have examined the role of needs’ satisfaction in the relationship between teachers’ sources of occupational stress and burnout. A total of 1925 teachers participated in our study. Results from structural equation modeling suggest that the impact of workload as well as students’ behaviors on burnout was partially mediated by satisfaction of the need for autonomy and competence. The impact of poor relationships with superiors and colleagues was fully mediated by the satisfaction of the three needs. Poor relationships with parents had no impact on teachers’ burnout. These results suggest that a useful paradigm to understand teachers’ mental health is self-determination theory. Indeed, it seems that most occupational stress factors experienced by teachers can be understood in terms of their impact on need satisfaction.

SESSION 2B

Emotions and emotion regulation

Chair: Wendy Grolnick

Contribution 1

The influence of emotional regulation style on performance in Emotional Stroop task with facial expressions and emotional words

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Co-authors: Assor Avi, Ben Gurion University

Abstract:
We examined how emotion regulation style affects performance on the Emotional Stroop task with facial expressions and emotional words. People with different emotional regulation styles differ in the way they manage anger. Integrative regulators manage emotions through acknowledgment and engaging in constructive actions. Dis-regulators experience emerging emotions as unmanageable. Suppressive regulators attempt to minimize emerging emotions and suppress them. We proposed that suppressive emotional regulation style is costly in terms of depleting ego resources, and therefore suppressive regulators perform poorer on Stroop task that require suppression of response. We expected to find suppressors’ poor response especially in the research condition that promotes anger. 120 participants were
randomly assigned into two research conditions that induced either negative or positive emotions. We assessed participants’ emotion regulation styles employing Assor and Roth’s Emotional Regulation Questionnaire. The results indicated a significant main effect of emotional regulation style on the performance on Stroop task, and a significant interaction effect between emotional regulation style and research condition on the performance.

**Contribution 2**

The influence of the leadership style of teachers, parents, and friends, on self-conscious emotions and high school motivation

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Co-authors: Geneviève Mageau; Daniel Pelletier

**Abstract:**
Guilt and shame are unpleasant and powerful emotional experiences endowed with strong motivational properties. Guilt consists of feelings of tension, agitation and remorse. It is associated with the appraisal that one has done something wrong and it motivates reparation, corrective action, and pro-social behaviors. By contrast, shame implies feelings of dejection, inadequacy, and worthlessness and it motivates behavioral disengagement and social withdrawal. The goal of the present project was to examine the influence of key social agents (teachers, parents, and friends) on the propensity for guilt and shame, and high school motivation. It was hypothesized that support from teachers, parents, and friends, would be positively associated with propensity for guilt and with self-determined motivation. Conversely, controlling behaviors were hypothesized to be associated positively with propensity for shame, and negatively with self-determined motivation. Moreover, propensity for guilt was hypothesized to be positively associated, and propensity for shame negatively associated, with self-determined motivation. A large sample of students (N=8000) was recruited in high schools situated in urban and rural areas of varying socioeconomic standing. Participants completed the Interpersonal Behaviors Scale (for teachers, parents, and friends), the Test of Self-Conscious Affect for Adolescents, and the Academic Motivation Scale. Data were analyzed using structural equations modeling. Results corroborated research hypotheses. All estimated paths were statistically significant. Model fit was satisfactory. Results are discussed in terms of their contribution to our understanding of the social and emotional antecedents of self-determined motivation.

**Contribution 3**

Autonomy and crucial experiences: Self-regulation in autobiographical documents of Franklin, Gandhi and Thoreau

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**Abstract:**
It is assumed that the autonomous regulation (Deci & Ryan, 2000; Moller, Deci & Ryan, 2006), which becomes a major life-goal, might increase the individual’s potential to cope with difficult life situations. Autonomous motivation is explored when individual’s autonomy is challenged by social conflicts, injustices and violent actions. Striving for autonomy might be enhanced by personal crucial experiences (CE). CE are defined as experiences that refute a previous mode of relating, mark a turning point in one’s life and imply a change in motivational balance from extrinsic toward intrinsic motives (Mamali, 1979). The autobiographies of Franklin, Gandhi and Thoreau’s Walden experiment are studied as paradigmatic modes of enhancing intentionally one’s own autonomy as a necessary condition to increase the personal ability to cope with major social conflicts for the sake of common good. The study advances the idea that autonomy develops across life span in relation with high moral goals and its trajectory might be recorded in autobiographies. In each case
are identified strategies imagined, and practiced by the three persons for enhancing their autonomy within challenging life situations. The analysis of these three cases suggests that autonomy is explicitly associated with character strength and goodness and that each individual worked out strategies to increase self-control while dealing with major social conflicts. Findings of field studies on CE (\(N = 304\), \(N = 92\)) and their correlations with the self-reflection on one’s own motives and with the changes in the motivational orientation (extrinsic versus intrinsic motives) at interpersonal level are presented.

**SESSION 2C**

**Philosophical approaches to SDT and humanistic thinking**
Chair: Rich Ryan

**Contribution 1**

**Humanistic management and Self-Determination Theory: The impact of the 'perception of work supervision' on employees' 'self-regulated motivation': An empirical French study**
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**Abstract:**
The aim of this article is to demonstrate the compatibility of a humanist management with the performance objective of the company. First, we study the main principles of “humanist philosophy”, in order to interpret them in terms of HRM practices. Then, we show the similarities between a “humanist HRM” and the recommendations of the self-determination theory (Deci and Ryan, 2000). Humanist philosophy and the self-determination theory seem to have the same ontology: every human being needs to follow a self-determination process. Numerous experiments and field investigations show that a feeling of self-determination at work is facilitated by an autonomy supportive work environment, and stimulates self-regulated motivation. Finally, we describe an empirical study conducted in France, with 568 questionnaires distributed to French workers. We build scales and a structural equations model. Our ‘perception of the work supervision scale’ which contains 6 items, is very satisfactory (Jöreskog räh: 0.873; \(X^2/df: 2.223\)). Our ‘self-regulated motivation scale’ is bi-dimensional (\(X^2/df: 4.91\)). The first dimension contains 3 items about intrinsic motivation (Jöreskog räh: 0.833; räh vc: 0.631). The second 3-item dimension is more about extrinsic integrated motivation (Jöreskog räh: 0.697; räh vc: 0.45). The structural equation model is quite satisfactory (\(X^2/df: 2.91\); RMSEA: 0.08; GFI: 0.91). Hypotheses are globally validated and results show the crowding-out/crowding-in effect of self-regulated motivation by a type of management perceived as controlling/informative and autonomy supportive. So we can draw the conclusion that there is a crowding-in effect of employees’ self-regulated motivation in a humanist management mode.

**Contribution 2**

**The original humanistic view of self fulfillment: Basic assumptions and relation to SDT**
Name: Roni Aviram
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**Abstract:**
This paper presents some of the arguments developed in my forthcoming book on self fulfillment. It presents the basic assumptions of the humanistic view on autonomy and self fulfillment according to its original developers, and examines a possible relationship of mutual support between the humanistic view and SDT. The first wave of humanist writers consisted of a small group of audacious German trailblazer thinkers, writers, and poets at the turn of the 19th century (including Herder, Goethe, Schiller, Novalis and
Humboldt). They developed a secular humanistic view on self fulfillment that offered an alternative to the materialistic enlightenment view (precursor of today’s behaviorism and instrumental methodologies of personal development), and anti rationalist fundamentalist trends (precursors of today’s new age and fundamentalist developmental views). The second wave, which included Marx, Mill and Nietzsche, resurrected the humanistic view and defended it against opposing tendencies which characterized modern societies (and even more so, present-day societies). The paper begins by briefly pointing to the decline of the humanistic view in postmodern humanistic societies at the point in history when, ironically, the superficial use of humanistic terms has reached its zenith in both everyday and professional discourses. It then focuses on “excavating” the basic psychological assumptions of the original humanistic tradition. It ends by asking whether this rich forgotten tradition and SDT support each other theoretically, practically and culturally.

**Contribution 3**  
**The fundamental need of virtue theory: Self Determination Theory**  
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**Abstract:**  
Just as the eudaimonic approach to well being seeks a return to an Aristotelian approach to ethics which posits that well-being consists in the satisfaction of fundamental needs rather than in the satisfaction of “vulgar desires,” a modern movement in moral philosophy known as “virtue theory,” likewise seeks a return to an Aristotelian approach to ethics. Unlike other moral theories that are focused on the rightness of actions, virtue theory is focused on human flourishing and hence is premised on the idea that human flourishing is a central concern of ethics. Importantly, virtue theory seeks to understand human flourishing by looking to contemporary biology and psychology. This paper argues that research within self-determination theory provides a compelling virtue theoretic approach to human flourishing, and should inform approaches to virtue which presume that autonomy is central to human flourishing. Specifically, I focus on the research within self-determination theory germane to the need for autonomy (i.e., intrinsic motivation, the concept of self-concordance, and Gollwitzer’s work on implementation intentions), and I show how this research both expresses some of the core tenets of Aristotle’s view of human flourishing, and provides a compelling notion of virtue that is completely compatible with liberal notions of well-being and the human good.

**SESSION 2D**  
**Does everybody benefit from autonomy-support? The importance of differentiating between objectively provided and subjectively experiences of need support**  
Chair: Maarten Vansteenkiste

**Contribution 1**  
**Offering an autonomy-supportive environment in kindergarten: Equally effective for all children?**  
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Co-authors: Jerissa de Bilde; Jan Van Damme

**Abstract:**  
Previous research has extensively illustrated the benefits of offering an autonomy-supportive classroom environment for elementary school children and adolescents (e.g. Reeve, 2006). The present study expands previous research in three ways. First, we included structural (organisational) aspects of the classroom environment. Second, data collection
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took place in kindergarten. Third, we included differential effects (i.e. differences between at-risk and not-at-risk children). Observations took place in 139 kindergartens, involving 2360 5-year old children, as part of the longitudinal SiBO study in Flanders. Observers rated interpersonal teacher style (autonomy-support, instructional support and emotional support), and structural educational aspects (time spent to free-choice activities, the number of choices, use of interest-based projects, attractiveness of classroom environment, etc). Pupils learning gain (language and arithmetic skills), and non-cognitive functioning (engagement, well-being and self-regulation skills, as reported by the teacher) were assessed. Multilevel linear regression analyses were conducted (Raudenbush and Bryk, 2002). Initial results show significant positive main effects of interpersonal style and a rich environment on children’s engagement; of the time spent on free-choice activities on self-regulated functioning, and of instructional support on gain in language skills. Furthermore, significant interactions were found. At-risk children benefit from instructional support, a stimulating teacher closes the gap between at-risk and not-at-risk children. However, at-risk children generally have lower levels of well-being, self-regulation and engagement when their teacher adopts an autonomy-supportive style, offers much free-choice, creates projects based on interests, and generates a rich classroom environment. We discuss some explanations of these findings.

Contribution 2
Class-to-class variation in vitality and intrinsic motivation in physical education as a function of the synergistic interaction between need-supportive teaching and pupils’ motivational orientations
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Co-authors: Maarten Vansteenkiste; Willy Lens; Georgios Sideridis

Abstract:
Two experimental field studies in a real-life Physical Education setting investigated whether upper elementary students’ interest/enjoyment and vitality varied from class to class as a function of the class-to-class variation in the manipulated motivational environment (Study 1 & 2) and students’ motivational orientation (Study 2). In Study 1, multilevel analyses showed at the within-student level that students (N = 168) reported, on average, more interest/enjoyment and vitality after a need-supportive, relative to need-thwarting, class. Study 2 (N = 155) replicated this main effect and further showed at the between-student level that enjoyment/interest scores across PE classes were higher among more optimally motivated students. Moreover, Study 2 provided evidence for a synergistic (i.e., interaction) effect such that especially optimally motivated pupils benefited significantly more from a need-supportive class. Finally, perceived need-support was found to fully explain the effects of manipulated need-support on interest/enjoyment and vitality. Results are discussed within the self-determination theory (Deci & Ryan, 2000).

Contribution 3
Time pressure and creative personality: Effects on employees’ creativity
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Abstract:
Under the framework of Self Determination Theory, we tried to examine the effects from time pressure and creative personality on creativity of employees. Data were obtained from 120 undergraduate students who completed some decision tasks about human resource management in laboratory settings. In the first study, results showed that the moderate creative personality individuals under the informational time pressure exhibited higher creativity, satisfaction of psychological needs and autonomous motivation than the
ones under the control time pressure situation; In the second study, results showed that
the individuals with high creative personality exhibited higher creativity, satisfaction of
psychological needs and autonomous motivation under high time pressure than under
intermediate time pressure. Under the high time pressure, high creative personality
individuals were higher in satisfaction of autonomy and competence, intrinsic motivation
and creative performance than the low creative personality individuals. Results also showed
that the creative personality individuals were different with the low creative personality in
the perception of time pressure. We found that creative personality and the time pressure
interacted such that the individuals who had high creative personality exhibited higher
creativity in high time pressure condition than in low time pressure, whereas those who
had low creative personality exhibited higher creativity in low time pressure than in high
time pressure but not significant in statistics. Satisfaction of psychological needs and
autonomous motivation mediated the interaction effects. We also discussed the implication
of these results.

SESSION 2E
What determines the choice between intrinsic and extrinsic goals?
Chair: Fred Grouzet

Contribution 1
Intrinsic and extrinsic goals and their relationship to well-being
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Co-authors: Evgeny Osin; Svetlana Gerasimova

Abstract:
Studies conducted in the United States, Germany, Russia, Croatia and Singapore have
confirmed Kasser & Ryan’s hypothesis that focus on extrinsic goals is associated with
lower well-being, whereas placing a stronger emphasis on intrinsic goals is associated
with greater well-being. However, some cultural differences in this general finding appear
and are worth of consideration. They are primarily related to gender differences and to
extrinsic goals which may have different meaning in less prosperous countries. In Russian
sample stronger importance and expectancies regarding extrinsic goals as predicted were
negatively related to well-being, although these effects were weaker for Russian woman
(Ryan et al., 1999). When do these gender differences appear and how stable they are? The
participants were 114 high school students (M=61, F=53) and 145 university students from
Moscow. They completed Aspiration Index (Kasser, Ryan, 1996), measures of well-being
(Lyubomirsky’s Subjective happiness scale, Trait Depression scale, Rosenberg’s
Self-esteem scale). The intrinsic aspirations were generally rated as more important
than extrinsic. Some prominent gender differences appeared: females rated appealing
appearance as more important and more attainable goal than males. Stronger importance
and expectancies regarding intrinsic goals were positively related to well-being, although
the effect of extrinsic goals on well-being was again gender-dependent. The high school
girls showed positive correlations between well-being and importance of such aspirations
as social recognition and financial success, whereas in male sample extrinsic aspirations
were unrelated to well-being. It is suggested that financial success and fame may mean
competence and help to satisfy this inherent psychological need.
Contribution 2
The effects of intrinsic versus extrinsic goal promotion on the subjective experience of a leisure time activity
Name: Leslie Podlog
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Co-authors: Marc Lochbaum

Abstract:
An experiment was conducted to test self-determination theory (SDT) hypotheses that promotion of an intrinsic (versus an extrinsic) goal would result in (1) reduced felt pressure and tension and (2) enhanced perceptions of interest/enjoyment, choice and effort in a leisure time physical activity. Students (n = 162) at a large university in the southwestern region of the United States participated in the investigation. Participants were randomly assigned to an intrinsic goal condition (i.e., “have fun and do the best you can”) or an extrinsic goal condition (i.e., “winning the competition will result in 5 bonus points on your final assignment”) prior to engagement in a round-robin competition of horseshoes. Analysis of variance revealed significant group differences (p < .001) for objective one but not for objective two. Consistent with SDT contentions, participants in the intrinsic goal condition felt less pressure and tension than participants in the extrinsic goal condition. Post hoc tests were conducted to examine congruence between experimental manipulations and participants’ self-reported goal (i.e., “winning” versus “having fun”) while performing the experimental task. Irrespective of participants desire to win or have fun, those in the intrinsic condition felt less pressure and tension than their extrinsic counterparts (p < .01, df = 3, 158). These results support SDT assumptions regarding the benefits of intrinsic goal framing for enhancing individuals’ subjective experience of leisure time pursuits. The findings have important implications for how health promotion agents attempt to frame and encourage leisure time physical activity.

Contribution 3
Convincing yourself to care about others: Increasing benevolence values through self-persuasion
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Co-authors: Adam M. Grant

Abstract:
Benevolence values, which reflect the motivation for relatedness, and the importance of protecting and promoting the well-being of others, are among the most important to most people in most societies (Schwartz & Bardi, 2001). They predict pro-social outcomes such as cooperating with others, volunteering, donating money, and having a “calling” work-orientation (e.g., Gandal et al., 2005; Grant & Mayer, 2009; Maio & Olson, 1995; Sagiv et al., in press). Is it possible to increase the importance attributed to benevolence values? Values are consciously chosen via motivationally driven processes that are, at least partly, cognitively controlled (Roccas, et al., 2002). Thus, we propose that self-persuasion may cause value change through deliberate epistemic processes. To explore the changeability of benevolence values, we developed a cognitive intervention, based on guidelines from research on persuasion (Petty & Cacioppo, 1986) and self-persuasion (e.g., Heslin et al., 2005). In three experiments, participants completed a self-persuasion task emphasizing the importance of either helping others (benevolence condition) or recognizing flexibility in personality (control condition). We measured benevolence values before and after the task. In Experiment 1, the self-persuasion task increased U.S. participants’ benevolence values. Experiment 2 replicated these effects in a different culture (Israel) and showed that by enhancing benevolence values, self-persuasion increased participants’ willingness to volunteer to help others. Experiment 3, demonstrated that the increase in benevolence values lasted at least four weeks. Our results provide evidence that value change does not require false feedback or comparative information about social norms, but can occur through structured reflection.
A1: BASIC PSYCHOLOGICAL NEEDS

1. A model for perceived relatedness in the context of executive business and elite sport: A qualitative study

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Abstract:
Relatedness has been referred to as a fundamental human need and small groups as human survival mechanism. The aim of this study was to explore components of relatedness and propose a model of perceived relatedness in the context of executive business and elite sport.

Individual semi-structured interviews were conducted upon 30 business executives and athletes; both elite and amateur. The interviews were transcribed and common themes were extracted.

Participants did not perceive relatedness in terms of individual relationships but instead as small groups, for example, “team” or “neighbors”, clustered into three domains: family, work/occupation, and social life. Furthermore, participants reported feeling “energized” or “drained” depending on how they perceived relatedness. Relatedness to one group could supply energy for operating in others. Senior executives and elite athletes were focused on generating sufficient energy for the work/occupation domain. Other participants were more concerned with “work-life-balance”. Proposed is a model of perceived relatedness as a hierarchy of inter-connected small group related energy reserves providing resource for self-regulation, motivation and effort regarding that specific group, other groups within the same domain or other domains, and being re-energized by perceived relatedness to that specific group. This proposed model furthers our understanding of perceived relatedness, may be useful for the understanding of dysfunctional and self-defeating behavior, and additionally suggests a theoretical platform for applied interventions attempting to enhance motivation and performance in areas such as business and sport.

2. Religiosity and basic need satisfaction in adolescents

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Co author: Anastasia Sinityna

Abstract:
The existing data indicate that religion is positively associated with well-being. A pilot study was undertaken to investigate the associations between religiosity and basic need satisfaction in two groups of Christian teenagers (age 13-16, N=78) studying in a regular public school and a Christian secondary school. The study used a Russian version of Basic Psychological Needs Scale (21 item). A number of well-being variables (purpose in life, life satisfaction, self-esteem) were also measured. Religiosity was operationalized as frequency of visiting church, endorsing a number of religious attitudes and having a religious family background. Multiple regression analyses were performed upon resulting
The satisfaction of the need for autonomy was positively associated with endorsement of religious attitudes \( (p<.01) \) and family religiosity \( (p<.05) \), but these associations were moderated by school type, being stronger in the Christian school. This finding suggests that religion may support autonomy, and indicates that teenagers feel having more choice when their religious attitudes and behaviors lie in agreement with the expectations of the school environment. In the regular school, the frequency of visiting church was positively associated with need for competence satisfaction \( (\rho=.35; \ p<.05) \), suggesting a positive role of religious practice in autonomy support. When the religious attitude scores were standardized within schools, the association between religiosity and self-esteem was found to be moderated by basic need satisfaction \( (p<.05) \), suggesting that religion may play a more important role for psychological well-being in adolescents with low basic need satisfaction.

3. The Effects of Basic Psychological Need Satisfaction on Direct, Indirect, and Behavioral Assessments of Video Game Preference

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Abstract:
The present research examines how psychologically need satisfying digital play influence automatic (indirect), deliberate (direct), and behavioral (observable) evaluations of video gaming contexts. Based on Self-Determination Theory it was hypothesized that play that supported basic needs satisfaction would lead to high levels of game preference, choice, and state-level indicators of well-being. Results supported this expectation as direct, behavioral, and indirect measures of these constructs were shaped by experiences of need satisfaction in the video gaming contexts. Discussion focuses on the use of indirect assessments of motivation as a promising avenue for future research focused on videogame engagement.

4. Modelling and measuring daily satisfaction of psychological needs

Name: Jonathan Rush
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Co author: Frederick M. E. Grouzet

Abstract:
The three basic psychological needs – autonomy, competence, and relatedness – have typically been assessed through one-time general measures. However, the use of intensive repeated measures designs (e.g., daily diary method), which capture the day-to-day satisfaction of the basic psychological needs, can allow researchers to examine a number of questions that one-time general measures are not able to address. Grouzet and Rush (2010) proposed three meaningful ways to analyze daily diary data: (1) examining growth trajectories of need fulfillment over time; (2) assessing daily relationships (i.e., within-day relations between need fulfillment and other variables); and (3) forming aggregate scores from the daily measures. The first strategy allows researchers to see changes over time in the satisfaction of psychological needs. The second strategy is less concerned with changes, but aimed to examine how needs satisfaction are related to outcomes on a daily basis (e.g., Reis et al., 2000). The third strategy has been used to measure true self-esteem (e.g., Kernis & Waschull, 1995) and could be applied to need satisfaction, which may provide a more accurate and less biased measure of general need satisfaction than using a one-time measure. Each of these analytical strategies can be employed to address unique questions involving psychological needs satisfaction, which can be included either as a predictor or an outcome variable. Examples of analyzing daily diary data will be presented demonstrating how each analytical approach can be used to address different questions related to basic psychological needs satisfaction in different contexts.
5. Psychological health and well-being
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Abstract:
The science that attempts to understand the behavior of a man is called psychology. Everything we experience come to us brought forth by a stimulus is termed a response everything response is preceded by a stimulus. The basic needs air, water, food; warmth and the likes are caused by bodily wants hunger is a typical example of basic need. The hunger stimulus results from a lack of food in the body. This lacks makes the stomach contract rhythmically.

6. Basic need satisfaction buffers the effect of mortality salience on death thought accessibility and worldview defense
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Co-authors: Jamie Arndt; Brian Pope

Abstract:
Terror management theory (TMT) research has typically found that awareness of mortality prompts defense of one’s cultural worldview. Based on both TMT and self-determination theory (SDT), however, the aversive awareness of mortality might also be effectively managed by one’s perceived satisfaction of the intrinsic needs for competency, relatedness, and autonomy. Thus, we measured perceived need-satisfaction, induced mortality salience (or a control topic), and then assessed the accessibility of death-related cognition (Study 1) and worldview defense (Study 2). As predicted, increased need-satisfaction was associated with reduced death thought accessibility and worldview defense when participants were reminded of mortality. This evidence provides support for the idea that basic need-satisfaction functions as an existential buffer against the awareness of death. Implications for TMT and SDT are discussed.

7. The daily ups and downs in eating patterns and bulimic symptoms as need substitutes: The role of basic need satisfaction
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Co-authors: Maarten Vansteenkiste, Bart Soenens

Abstract:
Adequately regulating food intake is a difficult and energy-consuming issue for many people. Previous research has focused on interindividual differences in general self-control (e.g. Vohs & Heatherton, 2000) and eating style (e.g. Anschutz, Van Strien, Van de Ven, & Engels, 2009) to predict people’s eating regulation. Few, if any, studies have, however, paid attention to within-person differences. The aim of the current research is to investigate both interindividual differences in general self-control, eating style and basic need satisfaction, as well as within-person differences in need satisfaction to explain unhealthy eating patterns.
and bulimic symptoms during the day, which we consider as compensatory (i.e., need-substituting) behaviors. First, we investigate whether a) the level of general basic need satisfaction and b) the tendency to exert self-control explain interindividual variation in eating patterns and bulimic symptoms. Second, we investigate whether daily fluctuations in need frustration predict daily fluctuations in eating patterns and bulimic symptoms, and, third, whether daily fluctuation in need frustration interacts with interindividual differences in self-control and need satisfaction. To answer these questions 250 female participants (aged 14 to 23) completed a booklet of questionnaires (prior to the diary study) and a short self-report questionnaire each evening for 14 days. Multilevel analysis using MLwiN2.02 will be undertaken to analyze the data. These findings might indicate that health care providers can support people pursuing a healthy lifestyle by considering their daily basic need satisfaction and helping them cope with need frustrating days.

8. Teacher and peers need support in physical education and their relationship to students’ motivation, self-esteem and health-related quality of life

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Abstract:
Based on the tenets of self-determination theory, this study examined three competing models specifying relations among need support from both PE teacher and peers, students’ need satisfaction, autonomous motivation, controlled motivation, and amotivation, physical and general self-esteem, and health-related quality of life (HRQoL). Estonian secondary school students (N = 461; M age = 13.56 years; SD = .60) completed questionnaires assessing key variables of interest. Results of the structural equation modelling indicated the three competing models to provide acceptable fit to the data. All models showed (i) perceptions of need support from both PE teacher and peers to positively predict all three needs while perceptions of need support from the teacher exhibited strongest effect on students’ autonomy and competence satisfaction, whereas need support from the peers influenced most strongly the need for relatedness, (ii) direct paths from competence to physical self-esteem and from relatedness to HRQoL, and (iii) autonomous motivation, controlled motivation, and amotivation not to be significant mediators between needs satisfaction and physical self-esteem (in Model 1 and 3) and HRQoL (in Model 2). Model 1 showed competence to positively predict physical self-esteem, which in turn positively predicted general self-esteem and subsequently HRQoL. Model 2 supported a positive path from both competence and relatedness to HRQoL, with HRQoL positively predicting physical self-esteem and subsequently general self-esteem. Model 3 supported general self-esteem and HRQoL to be distinct, yet related, dependent variables that were positively predicted by physical self-esteem. The findings are discussed with regard to facilitating students’ self-esteem and HRQoL through motivational processes in PE.

9. Role of managerial need support and basic psychological need satisfaction in predicting work engagement

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Abstract:
The present study used a mediation framework to examine the relationships among managerial need support, basic psychological need satisfaction, and work engagement. Managerial need support was hypothesized to predict work engagement both directly and indirectly through basic psychological need satisfaction. The hypothesized relationships were tested using survey data collected from 111 employees in the manufacturing sector in Malaysia. Multiple regression analysis results supported the hypotheses. Managerial need support was predictive of work engagement and the relationship between managerial need support and work engagement was mediated partially by basic psychological need satisfaction. The implications of the study for theory, research, and practice are discussed.
A2: GOALS, VALUES, AND ASPIRATIONS

10. Growth and fixed mindset as a predictor of life goal content
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Co-authors: Frederick M. E. Grouzet

Abstract:
Research has shown that life goals can be categorized as extrinsic or intrinsic. Some examples of extrinsic goals are the desires to be wealthy, popular, and physically attractive. Intrinsic goals may include striving for personal growth, developing relationships and fostering community involvement (Kasser & Ryan, 1993, 1996). Kasser (2002; Kasser et al., 1995) has demonstrated that when the three basic psychological needs are being met individuals are more likely to pursue intrinsic life goals. The aim of this study was to examine another possible predictor of life goals: growth versus fixed mindset (Dweck, 2006). Individuals who have a fixed mindset believe that personality and intelligence are rigid qualities that can not be controlled or changed. They focus on the adequacy of their skills, hold performance goals, and tend to avoid challenges. Other individuals have a growth mindset and believe that personality and intelligence are malleable and can be changed through effort. They focus on bettering their abilities, hold learning goals, and tend to actively engage in challenges (Dweck, 2006). University students (N = 350) completed questionnaires that measured their theory of intelligence and personality (i.e., mindset), psychological need fulfillment, and the content of their life goals (extrinsic versus intrinsic). Results showed that having a fixed mindset is positively correlated with holding extrinsic goals and negatively correlated with holding intrinsic goals, controlling for need fulfillment. The role of mindset as a mediator between need fulfillment and goal content will further be discussed.

11. Seeking information on healthy nutrition and weight management: Who is looking for what?
Name: Simon Beaudry
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Co-authors: Elizabeth R. Goddard-Hill; Caroline L. Quesnel; Luc G. Pelletier

Abstract:
Two studies investigated the concordance between motivational orientations and the perception of articles on nutrition and weight management. In Study 1, fifty-one female participants were instructed to select two to four articles from a list of twelve randomly presented articles. After choosing and reading the selected articles, participants evaluated their content. Results showed that a stronger extrinsic compared to intrinsic goal orientation was associated with the selection of articles framed with an extrinsic content. Findings from article evaluations also showed that an extrinsic goal orientation was associated to a more negative evaluation of intrinsically-framed articles and to the perception of extrinsically-framed articles as being more useful. In Study 2, female participants (N=70) were instructed to evaluate three randomly presented articles that focused either on healthy eating, weight management, or the achievement of beauty. Findings from a mixed 2x3 ANOVA suggested that participants with a more intrinsic goal orientation perceived the articles focusing on healthy eating and weight management as more informative, interesting and involving than the article focusing on beauty. In contrast, participants with a more extrinsic orientation appeared to perceive the article focusing on beauty more favourably. Results also revealed that the articles with a healthy eating focus were associated with increased vitality in participants regardless of their goal orientation. Theoretical implications for message framing and Self-Determination Theory will be discussed.
12. Balancing meaningful goals: Using Self-Determination Theory to initiate and maintain a healthy exercise routine

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Abstract:
A common approach to healthy exercise promotion involves extrinsically-rewarded goals framed in negative contexts. As a result, many people perceive exercise as an unpleasant personal sacrifice that is necessary to attain health benefits in an uncertain future. The response to these negative extrinsic appeals is often modest, resulting in less than optimal exercise initiation and even lower rates of adherence to exercise routines. Based on goal self-concordance and extant research on intrinsic motivation, I suggest that consumers who satisfy their most deprived psychological need—competence, relatedness, or autonomy—by pursuing an appropriately matching exercise goal will be more intrinsically motivated to exercise than consumers whose exercise goal does not match such need. Moreover, because of Self-Determination Theory, if exercising contributes to a balanced satisfaction of all three needs, the likelihood of long-term adherence to a vigorous sport routine will increase. I further suggest that exercise goals that satisfy all three psychological needs simultaneously, in an integrative fashion, will result in a stronger motivation to persist in their pursuit than if the balance is attained by alternating between specialized need-matching goals. I test these assertions by tailoring persuasive messages at specific consumer segments, categorized by their personal motivational preferences and current need deprivation. Respondents are recruited amongst undergraduate students in a Colombian university, and they are invited to take part in a quasi-experimental design during their regular academic semester. In the poster I describe the methodology used, discuss preliminary results, present contributions to theory and practice, and suggest ongoing research possibilities.

13. Uniqueness seeking in personal values

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Abstract:
The significance of social comparison in the construction of the self concept is well established in social psychology literature. The current research focuses on the process of social comparison with regards to a central personal attribute, personal values. We propose that social comparison of values may involve uniqueness seeking, whose extent and direction depends on the importance of the value. Specifically, we tested the hypothesis that for values that are highly important to self definition, individuals distance themselves from others by deemphasizing the importance of the value for others. In contrast, for values that are not important to them, individuals distance themselves from the others by overestimating the importance of the value for others. We tested these hypotheses among 211 university students, who reported their own values, and their perception of the values of a typical student. Benevolence values emphasize care for others and are among the most important to most people in most societies. Consistent with hypotheses, participants believed that they emphasize benevolence more than others. Thus, even people who relatively to others attribute low importance to benevolence believed that they are characterized by this value more than others. Power values emphasize authority and control and are among the least important to most people in most societies. Consistent with hypotheses, participants believed that they emphasize these values less than others. Thus, even participants who relatively to others attribute high importance to power believed that they are characterized by this value less than others.
14. Passion, vital goals and well-being in university study
Name: Elena Gámez
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Co-authors: J. M. Díz; H. Marrero; A. Breva; M. P. Galindo

Abstract:
Our purpose was to examine the differences in vital goals and well-being between passionate and non-passionate university students. Results (N=253) provided support for the hypothesis that being harmoniously vs. obsessively passionate is related with different types of vital goals, and has a differential influence in well-being. Specifically, obsessive students showed a preference for extrinsic goals like money, image and popularity, while harmonious students prefer intrinsic goals, like self-acceptance and community. Differences were also found in the subjective experience of positive affect between harmonious and obsessive students. In contrast, non-passionate subjects did not prefer any type of specific goal, and their individual levels on that strong inclination or desire (Vallerand, 2008) did not contribute to their subjective experience of well-being.

15. Valuing extrinsic life goals in business: Self-selection or program effect?
Name: Stephanie Goyert
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Co-authors: Frederick M. E. Grouzet; Jessica Abrami; Ali Dohadowla

Abstract:
Past research has demonstrated that students enrolled in business education tend to value extrinsic life goals more than students in disciplines such as education or psychology (e.g., Vanteenkiste et al., 2006). However, it is not clear whether this difference should be attributable to the program or to a self-selection effect (i.e., students’ self-schemas influence their enrolment in a specific academic program). If the program has a stronger effect, could the inclusion of ethical, social and environmental courses in the curriculum positively influence the development of intrinsic goals? In order to examine these hypotheses, one longitudinal study and one cross-sectional study were conducted among university students. Participants completed questionnaires examining their life goals (intrinsic vs. extrinsic), levels of identification to school, and perceived influence of the school on their goals. The results confirmed the hypothesis that business students value extrinsic goals significantly more than other students (e.g., psychology students). However, the distinction between self-selection effect and program effect is less clear, indicating a possible interaction. Finally, the role of the curriculum (e.g., a course on environmental business) seems to moderate the effect of Business education on extrinsic goals.

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Co-authors: M. G. M. Perras, & M. S. Fortier.

Abstract:
Research rooted in Self-Determination Theory has contributed to our knowledge of goals. Specifically, goal-direct behavior can significantly influence people’s persistence or adherence to a given behavior (i.e., physical activity). Furthermore, goals operate at different levels of specificity (e.g., dispositional, participatory, and regulatory) and can be differentiated based on their contents (e.g., extrinsic and intrinsic). To extend current knowledge, the purpose of the present study was to provide a descriptive account of goals in a cardiac population, with an emphasis on dispositional or life goals. To our knowledge, few studies have examined the goals of this population using a qualitative research
approach. At the mid-point of a four-month physical activity-based cardiac rehabilitation program, twelve patients who had suffered a cardiac event partook in individual semi-structured interviews. Self-Determination Theory provided the theoretical framework for data analysis. Our findings revealed that, in these cardiac patients, the most salient goals to emerge related to an improvement in overall health. These health goals occurred overwhelmingly at a dispositional level. Also, it is interesting that the reported health goals were of both intrinsic (e.g. feel energized) and extrinsic (e.g. control sugar levels) natures. Furthermore, we found that while a subset of patients energetically worked towards an all-encompassing return to previous health and functioning (e.g., before cardiac event), some patients were more concerned with day-to-day, immediate goals. It appeared that a select few of these patients even withheld from setting goals that we could label as dispositional.

17. When work interferes with love: Extrinsic and intrinsic work goals as predictors of satisfaction in romantic relationships

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Abstract:
Previous research demonstrates a relation between extrinsic (vs. intrinsic) life aspirations and poor intrapersonal outcomes; namely, lower individual well-being (e.g., happiness, vitality; Kasser & Ryan, 1996; Sheldon, Ryan, Deci, & Kasser, 2004). Interpersonal experiences may also be affected. Those valuing extrinsic aspirations may have more superficial relationships with others because extrinsic aspiration pursuits crowd out satisfying interpersonal interactions (Kasser, 2002). Consistent with this perspective, we expected that extrinsic aspiration for one’s work correlates with lower partner’s perceived need satisfaction and relationship happiness. To test this, 80 participants (24 men, 56 women; ages ranging between 18 and 60 (M = 32)) reported on their perceived partner work aspirations and their own need satisfaction and relationship happiness. Participants who perceived their partners to be extrinsic motivated for work reported receiving less relatedness, competence, and autonomy from their partners and felt less happy in their relationship. Mediating analysis showed that the need satisfaction is an underlying mechanism responsible for the effect of partner work motivation on relationship happiness. Future directions and broad implications for romantic relationships will be discussed.

18. Examining the impact of intrinsic versus extrinsic goal framing and autonomy-supportive versus internally and externally controlling communication style on Iranian fifth-grade male students’ academic achievement

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Co-authors: Vali Khalkhali

Abstract:
The goal of the present research was to examine the impact of intrinsic versus extrinsic goal framing and autonomy-supportive versus internally and externally controlling communication style on fifth-grade male students’ academic achievement. For this a two factorial design 2 × 3 were conducted. A learning text was framed in terms of the attainment of an intrinsic (i.e., health) versus extrinsic (i.e., physical attractiveness) goal and communicated these different goal contents in an internally and externally controlling versus autonomy-supportive way. Both conceptual and rote learning were assessed. 147 subjects participated in the study. Results of MANOVA analyses shown that intrinsic versus extrinsic goal framing and autonomy support promoted conceptual learning and retention. Such results were not found for rote learning. It appears that internally and externally controlling contexts and extrinsic goal contexts are equally effective in promoting a literal memorization of the learning material as autonomy supportive and intrinsic goal contexts.
19. From autonomy-supportive parenting to intrinsic life goals to enhanced well-being: The experiences of adolescents in China and North America

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Co-authors: Isabelle Gingras; Frederick L. Philippe; Richard Koestner; Jianqun Fang

Abstract:
Researchers have shown that prioritizing intrinsic life goals, such as community involvement, is related to well-being, whereas focusing on extrinsic life goals, such as financial success, is associated with lower well-being and that parenting influences the type of life goals that youth adopt. However, as demonstrated in two recent surveys, youth tend to prioritize extrinsic over intrinsic life goals. Adolescence is a key developmental period for forming life goals, which concern the objectives that individuals form to direct their lives. In a sample of 515 Chinese (56% female, mean age = 15.50) and 567 North American (52% male, mean age = 14.17) adolescents, a model of the relationships between parenting, life goals, and well-being was investigated and confirmed for intrinsic, but not extrinsic, life goals. Across societies, autonomy-supportive parenting was associated with the endorsement of intrinsic life goals, which in turn was associated with well-being. Intrinsic life goals partially mediated the relationship between parental autonomy-support and well-being. These findings support self-determination theory's proposition that prioritizing intrinsic life goals is beneficial across different societies and that autonomy-supportive parenting fosters the development of intrinsic life goals. The findings suggest that, cross-culturally, valuing intrinsic life goals is related to increased well-being among adolescents and that parents could encourage intrinsic life goals by being supportive of their children’s autonomy.

A3: INTERNALIZATION AND SELF-REGULATORY STYLES

20. Reconstructing the classificatory pattern of self-determination

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Abstract:
The first purpose of this study was to develop and validate a measure of self-determination in Korean. The result showed that the measure has high reliability and good validity. The second and main purpose was to reconstruct the classificatory pattern of motivation issued by self-determination theory. Self-determination theory proposes that the six entities of motivations are arranged distinctively on the uni-dimensional continuum of autonomy, i.e., self-determination. They are amotivation, 4 regulations of extrinsic motivation, and intrinsic motivation. Total eight models of classificatory pattern were compared using confirmatory factor analysis. Eight models came from the combination of 2X4 elements. where the ‘2’ represents nested vs non-nested, and the ‘4’ represents the factor numbers of 6, 4, 3, or 2. The results displayed that the nested models were far better fitted than the non-nested ones. Within the nested models, 2-factors model and 3-factors model were equally well fitted. The results suggested that the classificatory pattern of academic motivation needs to be reconstructed. The educational significance of motivation classification was discussed.
21. Emotional regulation in trust games
Name: Leah Borovoi
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Co-authors: Avi Assor; Yaniv Kanat Maymon; Oded Ponz

Abstract:
We applied a theory of individual differences in emotional regulation style to economic research. People with different emotional regulation style differ in the way they manage anxiety and anger. Integrative regulators manage emotions through the acknowledgment and engaging in constructive actions. Dis-regulators experience the emerging emotions as unmanageable. Suppressive regulators attempt to minimize the emerging emotions and suppress them. We proposed that emotional regulation style is highly significant in trust and reciprocity. In our study, we employed a “trust game” paradigm. The primary participant was given an amount of virtual money and decided how much virtual money to send to the other research participant. The amount of virtual money he or she decided to send was tripled, the other research participant got the money and decided how much money he was going to send back to repay the trust. The amount of money one chose to send served a behavioral measure of trust. Open University students performed this “trust game” task, received reply, completed the Emotional Regulation Scale, and answered about their emotions and revenge. Dis-regulators were less willing to take the risk of betrayal and sent less virtual money to the counterpart. Suppressors reported less positive and negative emotions than the others.

22. Antecedents and outcomes of emotion regulation in middle childhood and early adolescence: The role of attachment to parents
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Co-authors: Bart Soenens; Caroline Braet; Guy Bosmans

Abstract:
An important developmental task in early adolescence is the development of emotion regulation (ER) strategies. Maladaptive ER processes play a role in the development of psychopathology, such as depression. Further, interactions with attachment figures and subsequent attachment representations form a critical context for the development of ER. Specifically, Shaver and Mikulincer (2002) proposed a model assuming that two fundamental dimensions of attachment (i.e., anxiety and avoidance) are differentially related to two classes of ER strategies (i.e., hyperactivation and deactivation, respectively). Conceptualization of ER according to attachment theory and self-determination theory (SDT) show a surprising convergence. Specifically, the attachment-based concepts of hyperactivation and deactivation map well onto the SDT-based distinction between dysregulation and suppressive regulation. In this study, we examine associations between adolescents’ representations of attachment to parents (anxiety and avoidance), the SDT-based ER strategies of dysregulation and suppression, and depressive symptoms. In two studies with pre- to early adolescents (Study 1, N = 339 and Study 2, N = 746 at Time 1 and N = 385 at Time 2), evidence is provided for a model of differential mediation, where the effect of anxious attachment on depressive symptoms was mediated by emotional disregulation and where the relation between avoidant attachment and depressive symptoms was mediated by emotional suppression. Cross-lagged longitudinal analyses addressing the direction of effects in this model are currently being conducted.
23. Measuring reading motivation in elementary school
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Co-authors: Hilde Van Keer; Maarten Vansteenkiste

Abstract:
Given that an overwhelming number of leisure activities are available for the young generation, it becomes a real challenge to keep reading attractive and readers motivated. This is nevertheless important because the amount of time spent reading positively predicts reading achievement and knowledge of the world. Most of the previous studies on reading motivation made use of ‘The Motivation for Reading Questionnaire’ (MRQ) (Wigfield & Guthrie, 1995). This measure has, however, received poor validity support, and Watkins and Coffey (2004) therefore argued that further investigation regarding this matter is necessary. The aim of the present study is to develop a questionnaire measuring reading motivation (Self-Regulation Questionnaire (SRQ) – Reading Motivation), based on self-determination theory, and to explore elementary education students’ motives for reading. According to self-determination theory, it is hypothesized that various types of motivations for reading (i.e., external, introjected, identified, and intrinsic) can be distinguished. Both the SRQ and the MRQ were completed by fifth graders of 47 elementary schools in Flanders. The presentation will discuss the development and the psychometric quality of the SRQ, thereby relying on both exploratory and confirmatory factor analyses. Also, the results of the SRQ and the MRQ will be compared. An overview of different motivations reported by students will be provided.

24. Motivation and achievement of four children with differing autonomy profiles
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Co-authors: Stephen M. Tonks

Abstract:
Recently, motivation researchers have encouraged using qualitative methodology to complement the field’s mostly quantitative findings (Urdan & Turner, 2005). The goal of this study was to describe in detail the motivation and achievement of four students with differing autonomy profiles. We administered the Self-Regulation Questionnaire-Academic (SRQ-A; Ryan & Connell, 1989) and conducted interviews with 37 students in grades three to five. We then calculated mean scores for each regulation (intrinsic through external). Based on SRQ-A scores (ranging from 1 to 4), for each child we calculated an internal mean (IM) by intrinsic and identified scores and an external mean (EM) by combining introjected and external. Then, we selected four children who had the extreme highest and lowest IM and EM scores to achieve four distinctly different profiles. Internal and external mean scores for each student were as follows: Student A, IM = 3.65 and EM = 3.72; Student B, IM = 3.72, EM = 1.67; Student C, IM = 2.08, EM = 3.38; Student D, IM = 1.40, EM = 1.00. Analyses of interview answers, and data on motivation, anxiety, and achievement fostered a deeper insight into why students fell in their respective autonomy range. For instance, Student B reported wanting to be a scientist “because they get to study all the newest things in the world,” indicating autonomous motivation. Conversely, Student C reported wanting to do well in school because he likes to impress his parents, indicating low autonomy. We further illustrate consistencies and discrepancies within and across profiles.
25. Testing the self-determination continuum across two domains using the Rasch rating scale model
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Abstract:
The purpose of this research was to test the self-determination continuum proposed by self-determination theory with the Rasch rating scale model. According to SDT, types of motivation can be ordered along a self-determination continuum where intrinsic motivation is the most self-determined type of motivation and amotivation the less self-determined. Motivation types are expected to relate to each other in a simplex-like pattern, with stronger positive correlations between adjacent than distant motivations. However, some researchers have found that the proposed simplex-like pattern was not always supported (Li, 1999). We used Rasch rating scale model to test the proposed simplex-like pattern. This scaling model is more powerful than correlations to test the self-determination continuum because the correlations between two motivation types are expected to be sample dependent when calculated through Classical Test Theory (Bond & Fox, 2001). The continuum was tested by using two scales: 1) the Academic Motivation Scale (n=1406) (Vallerand et al., 1993), and 2) motivation toward extra-curricular activities (n=276) (Guay et al., 2009). Based on the Rasch model, results of both studies indicate that the SDT continuum is not fully supported with the AMS but mostly supported with the scale that assesses motivation toward extra-curricular activities. Rather than pointing out measurement problems to explain such divergent findings, we suggest that the self-determination continuum could be more supported in low pressure contexts such as the one of extra-curricular activities, comparatively to the one of education where control and performance goals are salient.

26. Measuring high school students’ motivation to participate in physical education classes.
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Co-authors: Dr. Ross Deuchar; Dr. Ruth Lowry; Professor Nanette Mutrie

Abstract:
The purpose of this research was to provide a measure of high school students’ levels of autonomy to participate in physical education classes. Two hundred and sixty-eight students (133 male, 135 female) between fourteen and fifteen years old from a large (n = 1800) public high school in central Scotland completed the Behavioural Regulation in Exercise Questionnaire (BREQ) online which was adapted for a physical education setting. Quantitative data in the form of relative autonomy index scores was generated allowing for a multi-dimensional analysis of students autonomy to participate. Two extra questions were added to the questionnaire; one to identify the gender of the participants and the other to discover whether participants had opted for additional certificated provision in physical education, known as a Standard Grade course. Findings suggest that the sub-scales of the BREQ support the inter-relationships between Self-Determination Theory’s multi-dimensional view of motivation; that there is an association between gender and the selection of additional certificated provision in physical education; that those students who opted for this provision (both male and female) have higher relative levels of autonomy than those students (both male and female) who did not and that male students have higher relative levels of autonomy for physical education than female students.
27. Exploring experiences of behaviour regulation in the work environment

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Abstract:
Self-determination theory (SDT) suggests that behaviour regulation is experienced in different ways; due to the intrinsic value of the task, or to the extent to which the external value of the behaviour has been internalised (external, introjected, identified or integrated from less to more internalised). This has been explored extensively in many realms but little in the workplace. Most research has occurred within a quantitative paradigm, which has strengths of measurement and causal inference, but assumes researchers can a priori discern all possible outcomes. We do not, therefore, have a clear understanding of how workers experience different forms of behaviour regulation. This research uses qualitative methods to explore the language that workers use when talking about behaviour regulation and the emotions associated with it. Semi-structured interviews were undertaken with 18 employees from a UK charity. Respondents described tasks where they were highly motivated and the reasons for this. The data was analysed using template analysis, where an initial coding template was developed from existing literature and a pilot and further developed during each stage of coding to explore the different regulatory styles. The research found evidence of all five different forms of behaviour regulation and various ways of describing this experience. There is also evidence of the internalisation process taking place, where workers particularly reported the organisation’s values as a strong reason for the value of the behaviour being internalised. This research raises insights into how SDT functions within a work context and the emotional manifestation of regulatory styles.

28. Forms of political internalization: A case in Bosnia

Name: Sabina HODŽIĆ
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Abstract:
The aim of this study was to extend past research (Koestner, Losier, Vallerand, & Carducci, 1996) on self-determination theory by examining individual differences in the way people value political involvement. We also studied relation between different forms of political internalization to decision-making processes, and emotional involvement in the voting outcome. Results showed that identified reasons for following the elections were endorsed most highly. Correlations among variables revealed that there was significant relation between intrinsic motivation, identification and introjection. Participants were more likely to report that they had actively sought information related to the accord, than that they had relied on the influence of important others. They also were more likely to report that they anticipated experiencing pleasant rather than unpleasant emotions if the voting outcome was in the direction they favored. Identification and introjection were associated with actively seeking information about the elections rather than relying on the advice of important others, and anticipating only pleasant emotions when the outcome was as desired. Decision-making strategies were associated with anticipating conflicted emotions about a positive resolution.
29. A study on the development of a diagnostic instrument for measuring teacher’s motivation for the classroom instruction
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Co-authors: Jieun Choi; Jung-Mi Ha

Abstract:
The purpose of this investigation was to develop a scale for systematically diagnosing teacher’s motivation for their classroom instruction in Korea by focusing primarily on teachers’ self-directed teaching capacities. In particular, the study was intended to develop an instrument to measure the perceptions of Korean teachers on classroom learning and their classroom behavioral patterns. Survey questions were initially developed based on a preliminary study examining self determination patterns and level of Korean teachers on instructional planning, implementation practices, and assessment in terms of the several tasks encountered in classrooms and the contextual factors that facilitated and hindered their instructional decision-making. A final version of the questionnaire was administered to a national sample of 680 Korean elementary, middle, and high school teachers. Data analyses revealed that the internal consistency of the nine subscales was generally adequate and that evidence of construct validity was, to some extent, provided. The findings of this study have some implications for making educational decisions on how to plan and implement effective professional development leading to instructional reform.

A4: CAUSALITY ORIENTATIONS

30. The role of general causality orientations in overweight women seeking behavioral weight loss treatment
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Abstract:
Purpose: This study aimed at understanding causality orientations in a weight management context, by analysing their baseline psychosocial correlates, whether orientations changed throughout a 1-year intervention, and if orientations predicted change in weight and physical activity (PA). Methods: At baseline, 239 women (37.6±7.1 yr; 31.5±4.1 kg/m2) were randomly assigned to intervention (IG) or control groups. The IG participated in a 12-month SDT-based weight management program. Controls received a general health education curriculum. Results: Controlled orientation was not analysed, due to the inconsistency/instability of the correspondent subscale. At baseline, the autonomous (AO) and impersonal (IO) orientations were negatively correlated (r=-.24, p<.001). In addition, self-determination, self-motivation, internal locus of control for weight, and self-esteem were positively associated with the AO, whereas depression, anxiety, neuroticism, and social physique anxiety were negatively correlated. The same variables were associated with the IO, but in the opposite directions. During the program, there was a small increase in the autonomous orientation in the intervention group (+1.6±8.0; p=.037; ES=.23) while IO did not change (-1.3±7.2; p=.060; ES=.15). Baseline orientations did not predict weight loss and PA adherence, before and after adjusting for participation group. Change in impersonal orientation was marginally associated with moderate/vigorous PA at 12 months, after adjusting for treatment group (r=-.15, p=.047). Conclusions: Results confirmed that an autonomous orientation predicts a more positive psychological profile compared to an impersonal orientation, in overweight and obese women. However, orientations were generally not associated with intervention outcomes, suggesting that these dispositional traits should not hamper success in weight management.
31. Motivational orientations, future connectedness and math instrumentality in a sample of Portuguese 10th graders

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Co-authors: Maria Paula Paixão

Abstract:
Self-determination theory, an organismic motivational approach, presents a conceptual framework that explains important personal and social behavioural regulation in educational contexts. This theory argues that different motivational orientations (autonomy orientation, controlled orientation and impersonal orientation) orient the individuals either to mainly intrinsic, extrinsic or uncontrollable aspects of the environment, thus promoting different “qualities” of both normative development and psychological well-being. If school contexts are typically future oriented, it is possible that these motivational orientations promote different kinds of instrumentality, namely math instrumentality in science and technology students. In a sample of 113 (53 male and 60 female) Portuguese 10th graders (secondary education students attending a scientific branch that prepares for higher education) we applied a Portuguese version of the General Causality Orientations Scale (Deci & Ryan, 1985 - 12 vignettes and 36 items) and studied its correlation to general future connectedness (Husman, 2009) and math instrumentality to future career and life goals (Gore & Leuwerke, 2000). Although, as expected, these students are more autonomy and controlled than impersonally oriented and, also, the correlations among these orientations go in the expected way, we couldn't find any relations with future connectedness and only a small significant positive correlation between the autonomy orientation and math instrumentality. The authors discuss the results obtained and point out to need to proceed to further psychometric studies of the measures used.

32. Russian Causality Orientation Scale: Elaboration and research overview

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Co-authors: Dmitry Leontiev

Abstract:
General Causality Orientation Scale (GCOS, Deci & Ryan, 1985) is an instrument for assessment of comparative strength of intrinsic, extrinsic and impersonal motivational subsystems. Our task was to elaborate the Russian version of GCOS, relevant for Russian culture. The exact translation of the original GCOS of 12 items did not work satisfactorily. The results of factor analysis of data of 100 students of Moscow State University were disappointing. Only 25% of items had factor loadings over .50. There was no item with good factor loadings on all the three answer options. We explained this by cultural differences and composed the Russian version of the scale with 30 new situations and response options typical for Russian culture. The structure was the same as in the original scale. At the second stage 213 nonpsychology students of Moscow universities volunteered to participate in this study. Having applied confirmatory factor analysis, we received 26 items with satisfactory factor loadings and good retest reliability were high enough. The general result is Russian version of causality orientation scale (RCOS) with good psychometric properties. The data will be also presented on comparison of different samples, convergent and discriminant validity with other measures and other results of using RCOS in the studies of achievement, choice, character strengths etc.
33. The qualitative side of personal choice and the perspectives of its measurement
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Co-authors: Dmitry Leontiev; Anna Fam

Abstract:
Autonomous causality manifests itself in the qualitative parameters of the process of choice. We aimed to single out processual subjective indicators of quality of concrete choices and to elaborate a tool for their assessment. We offered participants a number of bipolar descriptive 7-points scale scales of SD-type to evaluate both the quality of the choice process (‘I was making this choice...’) and its result (‘The decision I have made was...’). We applied this technique in different situations of significant choices (local elections, marriage, university attendance, vocational orientation at high school), having obtained a relatively invariant 4-factors structure that reflects the following qualitative dimensions of choice: 1. Mindfulness of choice (detailed vs. lacking elaboration and argumentation, ‘proactive’ vs impulsive ‘reactive’ choice). 2. Emotional sign (positive vs. ambivalent emotions in the process of making choice). 3. Self-dependence (autonomous vs. forced choice). 4. Satisfaction (acceptance vs. doubts about the choice actually made). The first three dimensions describes the process of the making the choice, the latter directed to the relation towards the result of the choosing. The final version consists of 16 scales. Some of the dimensions, especially mindfulness, reveal systematic significant (p<.05) correlations with autonomous causality orientation, hardiness, tolerance for ambiguity, purpose in life, optimism, and self-efficacy. This instrument allows us to explicate the subjective picture of making personal choice as an intrinsically vs. extrinsically regulated process.

34. On the conceptual distinction of general causality orientations
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Abstract:
This study investigates the conceptual overlap and distinction between individual differences in the Five-Factor Model and Self-determination theory. Participants were 223 adults (age mean=43.74; 60.09% women), who originated in a Danish national probability sample. The participants completed electronic questionnaires of dispositional personality traits (NEO-FFI) and general causality orientations (GCOS). Proposed separate latent models and alternative shared latent models of the underlying individual differences constructs had been developed in a previous exploratory study (Olesen, Thomsen, Schnieber & Tønnesvang, under review). The models were tested using confirmatory factor analyses. Results showed that all three causality orientations were distinct from but closely related to personality traits. Hence, integrative efforts are suggested in relation to comprehensive personality frameworks, that is general causality orientations can be understood as characteristic adaptations of dispositional traits.
35. Self-determination and social value orientation
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Abstract:
Recent research on personality determinants of cooperation indicates that there is a positive correlation between control and impersonal orientations and defective attitudes, a negative correlation between cooperation and control orientation and a negative correlation between autonomy and defective attitudes (Sotiriou, 2009; Sakalaki & Foussiani, submitted manuscript). The present study extends this research in that it investigates the correlations between general causality orientation (Deci & Ryan, 1985) and social value orientation (McClintock, 1978). Prosocials are more cooperative than proselves (De Cremer & Van Lange, 2001) and seems that external incentives to cooperate do not affect prosocials as much as proselves (Axelrod & Hamilton, 1981). Also, prosocials value fairness, honesty and equality, while proselves are mostly concerned with dominance over others and accomplishing personal goals (Liebrand et al, 1986). On the other hand, autonomy is positively correlated with honesty (Hodgins et al, 1996a) and autonomous oriented people use fewer lies in accounts for wrongdoing (Hodgins et al, 1996b), while control is associated with a defensive dislike of honesty (Hodgins et al, 1996a). On the basis of prior research findings and the above-mentioned theoretical framework, it was expected a positive correlation between prosocials and autonomy orientation and a positive correlation between proselves and control or impersonal orientation. The sample was composed of 159 Greek undergraduates, who completed the General Causality Orientations Scale (Deci & Ryan, 1985) and a nine-item decomposed game measure of Social Value Orientations (Van Lange & Kuhlman, 1994). The findings partially supported the hypotheses and showed a negative correlation between prosocials and control orientation (Pearson r=-.258**, p < .01) and a positive correlation only between competitors and control orientation (Pearson r=.176*, p < .05).

A5: MOTIVATION ACROSS CULTURES

36. Volleyball players’ motivational orientations in Turkey
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Abstract:
The purpose of the present study was to examine Turkish National Volleyball players’ sport motivational levels. Participants of this study were Youth National Volleyball Team players (N=82) and A National Volleyball Team players (N=74). Athletes completed the Sport Motivation Scale (SMS). Multivariate analysis of variance (MANOVA) analyses used to compare athletes’ motivation levels based on their gender and competition level (youth or adult team). MANOVA analyses revealed significant differences between male and female volleyball players’ sport motivation levels (Wilk’s Lambda .847, F (3,150) =9.03, p<.001, eta; .153). The results of the analyses revealed significant differences between the male and female volleyball players’ extrinsic motivation levels (F(1,156) = 22.563, p = .000), no significant differences were indicated between the volleyball players’ intrinsic motivation levels (F(1,99) = 1.206, p = .274) and amotivation levels (F(1,99) = 1.502, p = .222), based on their gender. Results also revealed a non-significant differences between volleyball players’ motivation levels based on competition level and interaction of gender X competition level (p>.05).
37. Norm of Vallerands academic motivation scale
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Co-authors: Parvin Kadivar; Mehrnaz Shaharay; Aliakbar Sheikhfi Fini; Valliolah Frazad

Abstract:
The current study has been carried out to norm academic motivation scale for Iranian students. This scale has been created by Vallerand and his colleagues (1992) on the basis of Deci and Ryan (1985) theory. The target population of this study were all students of Iran (male and female). 4000 student were selected randomly as a research sample. Finding of Explority Factor Analysis reveals that 7 recommended sub scale of Vallerand and his colleagues were reduced to three general sub scale called intrinsic, extrinsic and amotivation. Finding of Confirmatory Factor Analysis also confirm that these three basic factor structures. Goodness of fit scale which is gained by Confirmatory Factor Analysis indicated a good fit of model with data. Examining construct validity (divergent and convergent) indicated that subscales have an acceptable validity. Also Internal Consistency Analysis (cronbach alpha) and time reliability buttressed the notion that this scale has an acceptable validity and Reliability in Iranian students.

38. Examination of the Sport Motivation Scale-6 with Singaporean secondary students
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Co-authors: Mohamed Aris; Cliff Mallett

Abstract:
Measurement is a critical issue in empirical research and attempts to progress measurement should be valued and encouraged (Mallett, Kawabata & Newcombe, 2007). In an attempt to progress measurement in contextual sport motivation using self-determination theory (SDT; Deci & Ryan, 1985), the Sport Motivation Scale (SMS; Pelletier, Vallerand, Tuson, Brière, & Blais, 1995) was revised and a 6-factor 24-items scale (SMS-6; Mallett et al., 2007) was developed by including integrated regulation, which is consistent with SDT. In the initial study based on the responses from Australian samples, the revised SMS-6 was preferable to the original SMS. However, construct validation is an ongoing process (Marsh & Jackson, 1999), and further examination of the SMS-6 is necessary to support the efficacy of the SMS-6 in measuring contextual sport motivation across various age and cultural groups. To this end, the present study was conducted to examine the factorial validity and reliability of the SMS-6 with a non-Western sample. A total of 357 Singaporean secondary school students (191 male, 166 female) who actively engaged in sport completed the SMS-6 voluntarily. Participants’ ages ranged from 15 to 17 years (M = 15.5, SD = 0.6). The factorial validity of the SMS-6 responses was tested with confirmatory factor analysis (CFA). The hypothesized 6-factor CFA model provided acceptable fit to the data; however, through examination of interfactor correlations, three pairs of factors were empirically indistinguishable. The results of further CFAs revealed that the data collected from Singaporeans were represented most appropriately by the 3-factor model.
39. Patient centered interventions promise to promote health behaviors across cultures

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Abstract:
Proponents of self-determination theory (SDT) claim that SDT applies across cultures. Our purpose here is to compare findings from two similar health promotion interventions that were conducted in two cultural contexts. One group, pre- post-intervention designs were used; additional aims were to assess feasibility of methods. Settings were outpatient clinics in the US and Thailand. US participants (N=52) were primarily Caucasian, college-educated women. Thai participants (N=45) were adult pregnant women who mostly had middle school education. Interventions included six weekly contacts. Nurses facilitated participants’ autonomy in choosing health behavior goals (in the US, regarding diet or physical activity; in Thailand, regarding diet in Thailand). Nurses fostered participants’ perceived competence in engaging in new behaviors. Pre- post-intervention measures of autonomy support, autonomous motivation, competence, and health behaviors were obtained. Post-intervention measures were obtained 4 weeks later in the US and 2 weeks later in Thailand. Pre- post-intervention analyses follow. In both samples, participants’ scores on autonomy support and competence improved (ps < .05) whereas autonomous motivation scores improved significantly in the Thai sample (US, p = .06; Thailand, p < .001). Fruit-vegetable intake increased, fat intake decreased, and physical activity improved among US participants with corresponding behavioral goals (ps < .01). Thai participants’ dietary behaviors improved along with caloric, protein and calcium intake (ps < .05). Overall, our interventions were associated with improvement in SDT variables and chosen health behaviors. Findings are consistent with the claim that SDT has validity across different cultures in health promotion.

40. Understanding Chinese language lecturers’ motivation: A case study

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Co-authors: Wenying Ma; Jim Watters; Donghui Zhang

Abstract:
Motivation plays an important role in the process of second language teaching. Recent studies showed that there are significant problems with the teaching of foreign languages in higher education institutions in China. It has been argued that teachers in higher education lack both intrinsic motivation and extrinsic motivation to teach. Few studies have been conducted in which the types of motivation and the reasons for those types of motivation have been a focus in the context of teaching in higher education. The present study draws on Self-Determination Theory to investigate the kinds of motivation possessed by language lecturers in a higher education institution in China and factors which affect language lecturers’ motivation. The participants are 100 language lecturers in a university in China. Surveys on motivation, basic psychological needs, and well-being were used in the study. Descriptive and multivariate statistical analyses were undertaken on the survey data. The findings will contribute to new understandings of Self-determination Theory which is applied to teaching rather learning in the context of higher education in China. The present study will also advance the understanding of the cultural dimensions of Self-determination theory in the local advantages. The article concludes by suggesting some strategies for increasing foreign language teachers’ motivation in the Chinese university context.
41. Do collectivists also benefit from autonomy? Differentiating independent vs. dependent decision making from autonomous and controlling decision making

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Abstract:
In cross-cultural studies, the concept of autonomy is sometimes confused with the concept of independence and, as a result, gets put against dependence and relatedness. Following this logic, autonomy should not have a similarly adaptive function among Eastern individuals living in collectivistic culture compared to Western individuals residing in a individualistic culture. In this study, we conceptually and empirically differentiated SDT’s conceptualization of “autonomy vs. heteronomy” from the cross-cultural conceptualization of “independence vs. dependence”. To do so, we measured (a) Chinese (rural and city) as well as Belgian adolescents’ decisional independence vs. dependence and (b) the autonomous or volitional vs. controlled motives underlying both dependent and independent decision making. We hypothesized that in the three groups, in spite of cultural driven mean level differences in dependence and independence, the autonomous and controlling motives would have positive and negative relations to adolescents’ basic need satisfaction and well-being respectively. Consistent with SDT, we believe that it is not so much the independent vs dependent decision making per se but especially the volitional vs. coerced engagement in both of these decision making processes that is correlated with psychological outcome.

A6: EDUCATION

42. Teaching help seeking patterns according to goal orientations, teaching self efficacy, and experience among male and female teachers.

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Abstract:
The main objective of this study is to know the roles of achievement goal orientation, teaching self efficacy, experience, and gender in the help seeking patterns teachers adapted. The sample of the study was composed of 448 male and female teachers from Qassem region in Saudi Arabia. The researcher used three scales, the first one was to measure help seeking patterns for teachers, the second was to measure teachers’ goal orientations, and the third was to measure teaching self efficacy. The result of the study revealed that: 1. Female teachers outperformed male teachers in their help seeking avoidance. 2. High experience teachers outperformed Low experience teachers in instrumental help seeking and Low experience teachers outperformed High experience teachers in help seeking avoidance. 3. No differences were found help seeking patterns due to school levels. 4. No differences were found between teachers with high or low self efficacy in their help seeking patterns. 5. There was a positive correlation between instrumental help seeking and mastery orientation, and positive correlation between help seeking avoidance and both performance orientation, and performance avoidance.
43. Adult learners engaged in learning activities in literacy sessions
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Abstract:
An abundance of empirical research has supported the importance of self-determination theory (SDT) in educational settings. Researches have indicated that individuals engage in learning activities because they are held by their social contexts and their personal goals (Deci & Ryan, 2000 and 1985). Feather (1992) has concluded that individuals engaged in learning because they are trying to attain some personal needs and they have perceived the extrinsic value of the activities. In adult literacy sessions, learners engaged in learning because they are motivated to attain goals and they performed only learning activities that are relevant and meaningful for their personal needs and their current activities. We made the hypothesis that adult learners engaged in learning, make choice and performed only specific learning activity and they succeed on it. Results support the hypothesis investigated. Significant differences have been observed among learning activities achievement. All learners who engaged in learning are pursuing personal goals. Another interesting finding has revealed learners’ inner joy when self-determined to engage in learning activities, when they are able to achieve a specific activity with full sense of choice and volition and, and when, they succeeded on activities.

44. Does academic motivation predict academic achievement differently for immigrant boys and girls?
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Abstract:
This study, employing Deci and Ryan’s self-determination theory (SDT) as a theoretical framework, examined the effect of academic motivation on academic achievement for 266 immigrant adolescent boys and girls (132 boys, 134 girls) in Greater Toronto Area (GTA) secondary schools. Academic achievement (English, math, and overall GPAs) was regressed onto the academic motivation variables (amotivation, extrinsic motivation–external regulation, extrinsic motivation–introjected, extrinsic motivation–identified regulation, intrinsic motivation to know, intrinsic motivation to accomplish, and intrinsic motivation to experience stimulation). Amotivation, extrinsic motivation–introjected, and intrinsic motivation to accomplish were the significant predictors of math performance for immigrant girls. While extrinsic motivation–introjected was the sole significant predictor of English achievement for immigrant females, amotivation was the sole significant predictor for immigrant males. Further, amotivation and extrinsic motivation–introjected were the significant predictors of overall GPAs for both immigrant boys and girls.
45. Creating more “on-ramps” on the youth development highway: Self-determination and participation in community service

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Abstract:
Participation in service programs can be facilitated by positive adult-youth relationships, and can promote personal and civic competencies. Supportive relationships encourage autonomy, connection and competence. They promote learning, push youth to participate in new activities, and inspire youth to internalize values and adopt prosocial behaviors. Participation then must be considered as a process within the relational space of community programs. This presentation centers on “participation” for adolescents engaged in community service to determine a) how youth perceive the support of the program environment (basic needs), b) how programs enlist and direct participants’ motivational resources (cognitive evaluation), c) how youth internalize values, and adjust goals and patterns of behavior (organismic integration), and d) how participation changes over time, and differs between programs? This mixed methods study draws from observations of three active community service programs (afterschool, school-based, and church-based) over the course of one school year. We administered quantitative surveys and conducted interviews with a subsample of 36 high school-age youth (12 from each program). Measures assessed youth perceptions of the affordances of the learning environment as they relate to participation in service activities and personal transformation. Youth report high levels of autonomy, belongingness and competence and relate this support with participation. They describe opportunities for connecting interests with action and developing new patterns of civic behavior. We explore how experiences vary across programs, and demonstrate how adult mentors can create more “on-ramps” to promote participation in service and prosocial pursuits.

46. Controlled and autonomous mastery goals: Are mastery goals correlated with enjoyment even when they are promoted in a controlling context?

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Abstract:
Traditionally, mastery goals were identified with intrinsic motivation (Heyman & Dweck, 1992) and as strongly related to enjoyment and intrinsic satisfaction. However, in the last few years the definition of mastery goals has changed considerably and they are being defined by the type of standard or referent used to evaluate competence. Thus, mastery goals are focused on absolute or intrapersonal competence, in which past achievements serve as the standard for competence evaluation (self-improvement), whereas performance goals are focused on normative competence in which the standard for competence evaluation is the comparison to the performance of others (Elliot & Trash 2001). Based on self-determination theory (Deci & Ryan, 2008) we would like to claim that self-improvement standards (the key definition of mastery goal) can be based on either: introjected regulation or identified/integrated regulation. Thus, we hypothesized that when mastery goals are internalized in an autonomy supportive context they may be based on identification and therefore may be related to task enjoyment, but when the mastery goal is internalized in a controlling context it might be based on introjected regulation and therefore its relation to task enjoyment would be inferior. Thus, we assert that mastery goals will lead to enjoyment and intrinsic satisfaction only if they are acquired in an autonomy supportive context. To test our hypotheses, we conducted an experiment in which three groups of 30 college students each, completed two similar tasks one after another. Before engaging in the second task, the participants were asked to improve their execution in relation to their outcomes in the first task (procedure that reflects a mastery goal setting). Instructions were given in an autonomy supportive, controlling or neutral atmosphere. We expected that subjects in the autonomy supportive condition would display higher levels of enjoyment and satisfaction than the other groups. The results support our hypothesis. Implication of the study and future directions will be discussed.
47. The relationship of self-determined motivation and teaching practices to coping strategies used by college music students

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Abstract:
Researchers have asserted that task-focused coping lead to positive affects and promote a constructive engagement with stressors by engaging in the situation instead of avoiding it (Amiot, Gaudreau, & Blanchard, 2004). On the other hand, because disengagement-oriented coping involves the avoidance or denial of the stressful situation, this dimension has been associated with negative psychological and behavioral outcomes. Research has shown that self-determined types of motivation predict the use of more adaptive coping strategies in performance settings. In addition, autonomy-supportive practices from teachers in school settings have been linked to adaptive outcomes such as self-determined motivation, and lower levels of anxiety. Given that music tuition involves one-to-one relationships between music students and their instructors, autonomy supportive practices from the instructor should be particularly determinant for the development of adaptive coping strategies. The purpose of this study was to examine the contribution of music students’ self-determined and non self-determined types of motivation, their performance anxiety and their perceptions of their music instructor’s autonomy support and control, on the coping strategies used in stressful musical situations. Multiple regressions analyses were performed and explained 23% and 28% of the variance of task-oriented and avoidance-oriented coping, respectively. Specifically, students’ self-determined motivation (β = .27) and autonomy support from their music instructor (β = .20) predicted task-oriented coping. On the opposite, performance anxiety (β = .19) and perceived control from the instructor (β = .43) predicted avoidance-oriented coping. Non self-determined motivation was unrelated to coping. Theoretical and practical implications of this study will be discussed.

48. Chosen or influenced academic pathway: effects on later academic motivation

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Abstract:
This research aims at studying the impact of an academic pathway’s decision on the student’s later motivation. According to the self-determination theory (Deci & Ryan, 2002), an academic pathway not chosen or influenced by parents or professors would hinder later academic motivation. Unlike the unchosen one, a chosen academic pathway would be associated to autonomous motivation. 105 students, from 11th grade, participated in the research. Participants completed academic motivation scale (Vallerand, 1991). An information questionnaire assessed the perception of a chosen academic pathway and the influence of parents and professors. The results indicate that a chosen academic pathway makes a significant contribution in predicting later autonomous academic motivation (β = .22, p < .05). The influence of parents is associated with controlled motivation (β = .20, p < .05) but not with autonomous motivation (β = .15; ns). Finally, the perception of the professor’s influence in the academic pathway choice was found to be a significant predictor of autonomous motivation (β = .46, p < .001) and controlled motivation (β = .24, p < .05). The results confirm the hypothesis that a chosen academic pathway is associated to an autonomous academic motivation. And an influenced academic pathway is related to controlled motivation. However, the influence of professors in academic decision also seems to be favourable to an autonomous motivation. This study seems to have a great interest for practitioners insofar as motivation is known as a determinant of achievement school.
49. Beginning university studies: Exploring the relationship between the academic motivation and the psychological and academic functioning.

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Abstract:
Starting a university degree is an important event in an individual’s life. The reasons of the students to undertake university studies vary from one person to another. According to the theory of SDT, the type of motivation behind this action would vary on a continuum of self-regulation, ranging from autonomous motivation to controlled motivation, or even the absence of regulation or amotivation. In this context, more autonomous students could have a more effective psychological adjustment not only in the academic domain but in their life in general. Two studies were designed to test this idea with 418 first-year students admitted to two different degree programmes (Psychology and Education science) in two different geographical settings in Spain (Seville and Tenerife). In the first study, the general purpose was to explore the relationship between the type of student motivation (intrinsic, integrated, identified, introjected, extrinsic and amotivation) for wanting to attend university (measured by Vallerand et al., 1992) and different variables of psychological functioning: life satisfaction, positive and negative affects and emotional intelligence. The objective in the second study, which was conducted employing a sample of students from the University of Seville, was to explore the more specific relationship between the types of reasons that students gave for attending university and their academic performance four months after starting studies. The results in the first study showed a moderate increase in autonomous regulation with better psychological functioning. In the second study, no significant relationship between the type of regulation and academic performance was found. geographical contexts (Seville and Tenerife). Values were measured with the “Aspiration Index“, well-being was measured with Positive and Negative Affect Scale and Satisfaction with Life Scale. The results obtained in the analysis of correlations, in conjunction with results of previous research conducted by the authors of this study, were not as conclusive as expected. Trying to get more information about that results, we conducted a factorial analysis to determinate how closely the dates obtained with the “Aspiration Index” apply to the sample of students corresponded to structure of the inventory published by the authors. In addition to this, following the recommendations of Grouzet et al. (2005), we did again the analysis of correlations between values (intrinsic and extrinsic) and emotional well being taking into account the factorial structure obtained with the dates of our study. Overall, the results showed that although the factor structure obtained was generally similar to the original publication, some of the relationships between values and emotional well-being would increase when the results of factorial analysis are taken in account.
50. Understanding the association between future time perspective and self-regulated learning through the lens of Self-determination Theory

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Abstract:
Over the past decades researchers have demonstrated the positive association between holding an extended future time perspective (FTP) and learning outcomes (e.g., De Volder & Lens, 1982; Zimbardo & Boyd, 1999). The present cross-sectional research examined the process underlying this association through the lens of self-determination theory (Deci & Ryan, 2000). Participants were 275 high school and university students. Regression analyses revealed that students with an extended future time perspective were found to regulate their study behavior on the basis of several internal motives, including feelings of guilt and shame (introjected regulation), personal conviction (identified regulation) and interest in the learning activity (intrinsic motivation). The association with identified regulation was strongest and the association with intrinsic motivation fell below significance when controlling for identified regulation. FTP, although creating by definition an instrumental and extrinsically attitude towards the learning activity, is not equally predictive of all types of extrinsic motivation. Moreover, using Structural Equation modeling (SEM), we tested a meditational model in which introjected and identified regulation serve as a mediator between FTP and self-regulated learning outcomes. Introjected and identified regulation emerged as a mediator in the direct association between future time perspective and cognitive processing (Figure 1). Further, introjected regulation also played a negative mediating role in the association between FTP and determination/meta-cognitive strategy use. In contrast to introjected regulation, identified regulation failed to play an explanatory role in the relation between FTP and determination/meta-cognitive strategy use. This will be discussed in further detail.

51. The role of autonomy support and emotions: On the transmission of passion

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Abstract:
Passion is defined as a strong inclination toward an activity that people like, that they find important, that they invest time and energy in, and that has been internalized in their identity. Much research (Vallerand et al., 2003) has supported the existence of two types of passion, namely harmonious and obsessive. So far, little research has investigated the processes involved in the transmission of a passion from one person to another. The present research reports on two studies which examined the impact of autonomy support and emotions in the transmission process. It was hypothesized that the perception of an initiator’s passion (e.g., a teacher) should influence the transmission of that particular type of passion in the novice performer (e.g., a student) through autonomy support and emotions (e.g., excitement and enthusiast). With a retrospective design, Study 1’s results showed that an initiator’s harmonious passion, as perceived by the initiated, was positively associated with the initiated’s perception of the initiator’s enthusiasm, excitement, and autonomy support. Conversely, the initiator’s obsessive passion, as perceived by the initiated, was positively associated with the perception of excitement and negatively with autonomy support. By using a longitudinal design, Study 2 replicated the findings of Study 1. Additionally, Study 2 explored the role of teacher’s autonomy support and emotions toward students in the transmission process as measured from students’ perceptive. Results from SEM analyses demonstrated that different processes of transmission are at play depending on the teacher’s type of passion. Implications for future research are discussed.
52. Dropout intentions among special need adolescents: 
The role of perceived competence and its precursors

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Abstract:
School dropout constitutes a serious social problem, and teenagers in youth social rehabilitation centers are particularly at risk. The goal of this study was to examine whether variation in perceived school competence is related to these youngsters’ dropout intentions. Secondly, we investigated how teachers’ practices relate to the satisfaction of their competence need.

The study took place in two integrated schools of youth social rehabilitation centers in Montréal. Participants (N=115) were French-speaking teenagers aged 12 to 17, attending these special schools for emotional and behavioural problems. Students answered a questionnaire assessing their competence at school, (Losier et al, 1993; La Guardia, 2000) and their dropout intentions (Hardre & Reeve, 2003; Vallerand & al., 1997). Students also rated teacher’s educational approaches (i.e: autonomy support, structure, involvement and psychological control; adapted Mageau et al., 2008; Belmont, 1988). Finally, teachers rated students’ cognitive problems (Conners, 2000). Correlational analyses showed that perceived competence was negatively related to dropout intentions (r=-.43, p<.01). This relationship remains significant when controlling for actual cognitive problems (partial correlation;r=.39, p<.01). Next, correlational analyses revealed that a lower level of perceived competence is associated with students’ perceiving their teachers as being more psychologically controlling (r=-.48, p<.01). In contrast, perceived levels of autonomy support, structure and involvement from teachers all related to higher feeling of competence (r=.52, r=.55, r=.59, all p<.01). Although special need students are objectively less competent as a group, they benefit from feeling competent and optimal learning environments should foster the satisfaction of this intrinsic need.

53. EFL teachers’ perceptions on learner autonomy in a Turkish state university

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Abstract:
Autonomy, as being one of the three basic psychological needs, is something desired in education settings because although teachers lie at the heart of education, learners themselves are required to be responsible for their own learning. The definition of autonomy may differ in different cultural settings and teachers may have different expectations from learners, and it provides valuable information if how teachers perceive learner autonomy is explored in educational settings. This study aims at investigating the perceptions of EFL teachers (n:108) on learner autonomy in a Turkish state university where university students take at least one-year compulsory English language education before studying their major. The data on a five-point likert scale questionnaire, which was originally developed by Camilleri(1999) for a research project in six European countries for European Union, reveal that the majority of the participants perceive learner autonomy an important issue in, for example, determining goals and objectives of a course, the use of audio-visual aids, and so on. The results also revealed that the majority of teachers stated their strong support for issues such as short-term course objectives, topics of course content, type of class activities, position of desks and seating of students, attendance and so on. However, in some areas including textbook selection and time and place of the lesson, they expressed their resistance to learner autonomy. Moreover, the study includes some suggestions in terms of the perceptions of EFL teachers on learner autonomy based on the outcomes.
54. Academic procrastination - influences of school-related parental control, the intensity of the relationship to parents, adolescents’ self-regulation and self-efficacy

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Abstract:
Students often have difficulties in beginning and completing tasks. Thus, procrastination is a highly relevant topic in academic contexts. We explored the role of adolescents’ perceived school-related parental control and the intensity of the relationship to parents as predictors of self-regulation, self-efficacy and academic procrastination. Self-regulation and self-efficacy have been shown to be related to procrastination in former research. The study also examined adolescents’ self-regulation and self-efficacy as mediators of the impact of school-related parental control and the intensity of the relationship to parents on academic procrastination. Self-report measures were completed by 906 German students (13-14 years old) from middle and high school track. Correlations indicated that the measures of the intensity of the relationship to parents, self-efficacy and self-regulation were negatively related to academic procrastination. Regression results indicate that low school-related parental control predicted higher self-regulation and self-efficacy. The intensity of the relationship to parents predicted higher self-regulation and self-efficacy and predicted lower procrastination. Self-regulation and self-efficacy, respectively, also negatively predicted procrastination. Results from meditational analyses denoted both self-regulation and self-efficacy as mediators of the observed effect of the intensity of the relationship to parents on academic procrastination.

55. Autonomy, competence, and relatedness in the classroom: Verifying some basic hypothesis derived from SDT in the context of two experiences of academic learning with first-year university students

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Abstract:
Several investigations, carried out in the context of various educational settings, have offered empirical support to the consideration derived from SDT: the satisfaction of the psychological needs of autonomy, competence and relatedness is related to the development of self-regulation styles (for the behaviour for learning) and to the academic well-being and performance. In line with this consideration, the main objective of the present study was providing more information about these relationships and exploring other basic predictions from the theory in the context of two specific subjects. The research was conducted with 195 first-year undergraduates from two different degree programmes. The variables and the questionnaires used were the following: the type of motivation related to behaviour of attending university (measured by AMS), the satisfaction of the needs of autonomy, competence and relatedness and the intrinsic motivation in the context of the each subject (measured all them by the Intrinsic Motivation Inventory), support for autonomy (measured by the Learning Climate Questionnaire), the type of motivation behind the behaviour of learning the subjects (measured with an adaptation of SRQ-L), academic well-being with each subject (measured by the PANAS) and the academic performance. Mostly, the results supported the basic hypothesis derived from the SDT, however the pattern of relationships between the measured variables differed depending on the type of students’ motivation for wanting to attend university.
56. Investigating students’ situational motivation in physics in Finland, Germany, and Switzerland

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Abstract:
Students’ affective characteristics, such as motivation, have correlated significantly with content-related performance in large-scale assessments, such as PISA and TIMSS. We have investigated students’ situational motivation towards physics in Finland, Germany, and Switzerland as a part of a larger research project QuIP (Quality of Instruction in Physics). The sample consisted of 103 lower secondary level classes (25 in Finland, 31 in Switzerland, and 47 in Germany), all of which were investigated after a two-lesson unit with an identical topic: connection between electrical energy and power. Our instrument for situational motivation is based on two influential theories: self-determination theory and expectancy-value theory. There are altogether 10 scales which are investigated with 38 Likert-scaled items, some of which are adapted from existing instruments. The items deal with an overall impression of the two-lesson unit. Although this is not a very situational approach to motivation, it gives more detailed information about students’ orientation towards a certain topic than items assessing motivation towards physics in general. Our instrument has been pilot tested in two phases. The internal consistencies of the scales of the instrument in the second pilot test were between .70 and .87. The factor analysis yielded 7 factors with an Eigenvalue greater than 1 and all factors could be identified from the theoretical background. In the poster the quality of the instrument is analyzed based on the project’s main study data. Furthermore, differences in situational motivation between the participating countries will be reported.

A7: EXPERIMENTS ON INTRINSIC MOTIVATION

57. On the antecedents and consequences of the three types of intrinsic motivation

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Abstract:
Intrinsic motivation (IM) refers to engaging in an activity purely for the pleasure and satisfaction derived from doing the activity. Although previous research has studied IM from a unidimensional perspective (e.g., Ryan & Deci, 2000), research suggests that a multidimensional approach may lead to both conceptual and applied advances (e.g., Vallerand, 1997; Vallerand et al., 1992). Specifically, these authors have proposed a tripartite taxonomy of intrinsic motivation consisting of IM to know (engaging in an activity to experience pleasure and satisfaction while learning, exploring, and trying to understand something new), IM towards accomplishment (engaging in an activity for the satisfaction and pleasure experienced when attempting task mastery), and IM to experience stimulation (engaging in an activity for feelings of sensory pleasure, fun, and aesthetic enjoyment). The purpose of the present series of studies was to test whether the three types of intrinsic motivation are associated with different antecedents and consequences. Results revealed that whether people are likely to experience one type of IM over the others depends on people’s personality styles and on the type of task at hand. In addition, each type of IM has been related to specific emotions and behaviors. Overall, results underscore the importance of a multidimensional taxonomy of IM for a better understanding of the intrinsic motivation concept.
58. The effects of autonomous behavior on compliance arousal
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Co-authors: Kyriaki Fousiani

Abstract:
Two studies investigate the effects of perception of behaviour as autonomous and intrinsically motivated versus controlling and extrinsically motivated (Deci & Ryan, 1985a) on compliance with externally imposed acts (Joule & Beauvois, 1998). Study 1 (n=132) experimentally showed that participants adopt more positive post-experimental attitudes – compared to their pre-experimental ones – towards the experimenter’s request in commitment - informational context (i.e. autonomy supportive) condition t(35)=-2.81, p=.008. The opposite was observed in commitment -controlling context condition t(29)=2.52, p=.017. Participants also showed a more positive post-experimental intention to the experimenter’s request in informational (M=14.55, SD=3.55) rather than controlling (i.e. non autonomy supportive) context conditions (M=12.22, SD=2.30). A more positive intention to the experimenter’s request was also found in commitment conditions (M=14.18, SD=3.22) compared to non commitment ones (M=12.57, SD=3.03). Study 2 (n=122) revealed more positive post-experimental attitudes -compared to the pre-experimental ones- towards the experimenter’s request in commitment - informationally administered rewards condition t(25)=-6.44, p<.001, while the opposite occurred in commitment - controllingly administered rewards condition t(24)=2.74, p=.011. Moreover, a more positive intention to the experimenter’s request was found in commitment–informationally administered rewards condition (M=15.84, SD=4.29) compared to commitment – controllingly administered rewards condition (M=10.12, SD= 4.98).

59. The effects of control versus autonomy in hypermedia learning environments
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Co-authors: Liesbeth Kester; Saskia Brand-Gruwel; Rob Martens

Abstract:
This study concerns the effect of autonomy when studying learning material on students’ motivation, perceived mental effort and learning results, taken into account students’ prior domain knowledge, learning ability and attitude towards learning. The objective of this study is to find a balance between the implications, for the design of educational instruction, of Cognitive Load Theory (CLT) and Self Determination Theory (SDT) with regard to the amount of control that is optimal for learning. A total of 300 grade 5 students participate in the study, which is set up according to a between subjects design with three conditions. In the fixed condition students work their way through the tasks and study material in a predetermined way. In the learner control condition the students have to choose their own tasks and study material from a database, no structure is given. In the autonomy condition the students get control over the type of control for the tasks and materials, by being able to choose their own study materials, follow the structured learning path, or creating a mix of the two. In a pre-test the student prior domain knowledge and attitudes towards school are measured. For learning ability the CITO-scores are used. Their perceived mental effort and motivation are measured after each task. At the end, factual knowledge, in-depth knowledge and the transfer of knowledge are measured, as well as motivation and basis psychological needs fulfilment. Results will be available.
60. The dynamics of the situational motivation
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Abstract:
We conceptualize situational motivation as a self-organising dynamical system and investigate implications of this perspective in the physical activity settings through two studies. In the first one, we have differentiated participants (n1=194, Mage= 13.04) in two groups by their self-determination motivation level in sport context. Twenty students per group participated in an experimental design in order to measure their situational motivational dynamic (putting task). Using a retrospective video recall method, each participant expressed on a computer their moment-to-moment level of his involvement. Each series was modelled by means of ARIMA procedures. The results showed that more the participant is self-determined at contextual level more his time series is characterized by an auto-regressive model. The aim of the second study was to model and characterize the psychological processes that underlie the dynamics of the situational motivation for the volley-ball training. Two young elite French players, with very high contextual self-determination levels, have completed a very short version of the Situational Motivation Scale during two weeks for assess several times during the day their motivations for the next training session (two sessions per day). Interviews were conducted at each end of the two weeks, and provide some results which suggested that situational motivation fluctuated according to the ecological constraints of the situation, but tends to be the more possible representative of the contextual motivation. Self-regulation strategies used by the two players for keeping a high level of situational self-determination, and the methodological tenets associated with the situational measure will be discussed.

61. Helping students to self-evaluate: The effects of feedback
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Abstract:
From a self-determination perspective, feedback is an essential component of the educational process and an important means of improving skill development. The aim of our study was to examine the effect of feedback on self-regulated learning, self-directed evaluation of personal performance, and mathematical achievement. In the present research, we establish performance calibration as a key aspect of self-regulated learning, since a realistic view of one’s competence can serve as a motivator to improve one’s skills. We examine the effects of feedback, provided continuously over several learning trials, on students’ calibration accuracy, self-evaluation skills, and achievement in a new math task. Ninety fifth grade students were randomly assigned to experimental and control groups. The experimental conditions were based on three types of feedback (individual, social comparative, without any feedback) which was provided during the practice phase of the experiment. Each group consisted of ten students. We conducted analyses for both the complete sample and an at-risk group of low performing students who had difficulty accurately estimating their capabilities. Students who received feedback were more accurate and thoughtful in their self-evaluative judgements than students who received neither type of feedback. In at-risk students, feedback additionally led to increased performance. Feedback that involved social comparative information tended to be more supportive than individual feedback on several measures. Drawing on self-determination theory, we discuss educational implications of findings with respect to the impact of feedback on learning and motivation in the classroom.
62. Flexible mindset leads self-determination to its optimal functionalities
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Co-authors: Szihsien Yu ; Chin-lan Huang ; Yi Cheng

Abstract:
Since Self-determination is a powerful motivation force, a “correct” mindset should be able to lead this power further to its optimal expression. Previously, Deci & Ryan (2000) have asserted that self-determinant (or autonomy) has the potential to lower defensive self-views. We further propose that when people are under flexible and global mindset, the self-determinant is related to the optimistic rather than self-exaggerated defensive attributions. A flexible mindset means viewing life events from a stepping backward and holistic point of view. The current study designed a scramble sentence task to prime either flexible or nonflexible mindset. Results showed that the tendency of self-determination decreased self-enhancing attributions and increased non-defensive attributions for negative events only under flexible mindset priming condition but not under non-flexible mindset priming condition. According to Buddhism, distress originates from avarice, hatred, ignorance, arrogance, suspicious, and false views. The more people persist, the more desires they have, and subsequently, the more distress and pain. Based on this line of reasoning, we argued that when the mind is flexible rather than persistent would provide a rich and fertile land for the self-determination motivation to bloom its optimal functionalities.

63. The role of autonomy in fostering well-being of adolescents with rehabilitation needs: An experimental study.
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Co-authors: Audrey Savard, Jonathan Breton & Mireille Joussemet

Abstract:
According to Self-determination Theory (Deci & Ryan, 2000), autonomy promotes well-being and adjustment. The goal of this study was to examine how it affects special needs youngsters during a clinical activity. This experiment took place in a youth social rehabilitation center of Montreal. Participants (N= 29) were French-speaking teenage girls with severe behavioral and emotional problems. Teenagers engaged in a clinical activity (groups=max 6) on interpersonal problems skills, a tedious but important activity for youth with rehabilitation needs. The groups were led by the same instructor but in two different ways; with or without AS. After having participated in the activity, girls filled out questionnaires about their well-being (adaptation of PANAS; Watson & al, 1988) and their motivation for clinical activities (Guay & al, 2003). First, correlational analyses revealed that the more girls were initially self-determined for this type of task, the more they experienced positive emotions during the activity (r=.48, p<.01) and the less they felt negative emotions (r=-.47, p<.01). Furthermore, a one-way Anova yield that the autonomy support condition leads to less negative emotions during the task (F(1,27)=10.54, p<.01), compared to the control condition. Finally, when negative emotions was regressed on motivation and condition, results reveal that the effects were additive (R2=.33). Controlling for initial motivation (B=-.33, p=.05), an AS condition also reduced negative emotions (B=-.42, p<.05). This study suggests that the benefits of self-determination extend to a population with special needs and may have a role in facilitating their social rehabilitation.
64. Autonomy versus performance: Competing explanations for the impact of grading on intrinsic motivation
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Abstract:
The use of rewards to motivate constitutes an unresolved “decades-old war” (Ryan & Deci, 2006, p. 1559) between behaviorists and self-determinists. We argue that this controversy can be resolved by treating the two major post-task intrinsic motivation constructs, namely task reactions and ongoing motivation, as separate constructs, a step not yet taken by either party. In two experiments carried out with classroom grading, arguably a high-stakes reward, we tested the hypothesis that performance-contingent rewards and task autonomy differentially impact two distinct types of post-task intrinsic motivation. A standard grade condition, acting as a reference condition, was compared to two other conditions, on the one hand a higher grade condition and, on the other, a no grade condition. The relative power of task performance and perceived autonomy to explain differences in subsequent motivation (post-task appreciation and ongoing motivation) was assessed using dummy contrasts. Results show that, compared to the standard grade condition, both high grade and no grade conditions enhanced the two forms of subsequent motivation. However, the level of task performance explained higher levels of post-task appreciation in the high grade condition, but failed to explain higher levels of ongoing motivation. Perceived autonomy, conversely, explained the higher levels of both post-task appreciation and ongoing motivation experienced in a non-graded condition. We propose an integrative model that reconciles conflicting opinions within the rewards-self-determination controversy by clearly distinguishing between two different types of intrinsic motivation.

65. Promoting self-determined regulation among teenagers in social rehabilitation: The role of autonomy support.
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Co-authors: Julie Emond Pelletier; Pawel Zaniewski; Mireille Joussemet

Abstract:
Self-determination theory posits that the need for autonomy is universal (Deci and Ryan, 2000). The goal of this study is to test whether adolescents with social maladjustment would also benefit from autonomy support (AS) during a tedious yet important task. This study evaluated the impact of AS on teenagers’ motivation for the task as well as on the perceived value and liking of the task.
The study took place in a youth social rehabilitation center of Montreal. Participants were French-speaking teenage girls (N=29). They engaged in a one hour workshop on interpersonal problem solving in small groups (max. 6). Groups were led by the same instructor but in different ways (with or without AS). Standardized scripts for each condition were followed. Next, participants evaluated the task (Boggiano et al., 1993) and their motivation for the task (Guay, Vallerand and Blanchard, 2000). One-way Anovas revealed that the presence of AS (vs. absence) promoted a higher level of identified regulation (F (1, 27)= 5.87, p<.05; R2=.18). Furthermore, teenagers in AS condition rated the task as more valuable than those in the no AS condition (F (1, 27)= 9.28, p<.01; R2=.27). Finally, when the activity was given in an AS style, teenagers liked it more (F (1, 27)= 4.89, p<.05; R2=.15). It appears that AS fosters positive outcomes, even in the context of social rehabilitation. Experiments with clinical samples extend the established benefits of AS to “difficult” populations. Therefore, an optimal rehabilitation environment should be autonomy-supportive as to promote more self-determined regulation.
66. How need for structure and type of evaluation affect motivation and creativity
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Abstract:
In organizations, creative performance often takes place in an evaluative context. Previous research has shown that whether or not evaluation is conducive to intrinsic motivation and creativity depends on the type of evaluation: Informational evaluation helps intrinsic motivation and creative performance, whereas controlling evaluation hinders these. The current research extends this work by addressing the issue that Personal Need for Structure (PNS) – a chronic preference for certainty and a dislike of ambiguity - moderates the effects of informational versus controlling evaluation. Specifically, we hypothesized that informational evaluative situations lead to higher motivation and higher creative performance than controlling evaluative situations, but only when PNS is low. When PNS is high, motivation and creative performance should not be affected by type of evaluation, because both types of evaluation may reduce ambiguity. We tested this hypothesis in a field study and an experimental study. In the field study, we found that, as expected, the degree to which employees perceived an Electronic Monitoring (EM) system as informational was positively related to intrinsic motivation, but only when PNS was low. In the experimental study we further showed that participants who expected informational (as opposed to controlling) evaluation performed more creatively, but again only when PNS was low. For high PNS individuals, intrinsic motivation and creativity were not differentially affected by informational versus controlling evaluation.

67. French validation of the Behavioral Regulation in Sport Questionnaire (BRSQ) by adolescents.
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Abstract:
The purpose of this study was to validate a French version of the BRSQ to measure all factors of self-determined motivation by young people. This scale has demonstrated high psychometrical qualities in the sport context (Lonsdale, Hodge, & Rose, 2008). The transcultural validation procedure was based on Vallerand’s (1989) protocol: a translation, a pretest study, a large study for the experimental factorial analysis. Firstly, three sport psychologists with expertise in self-determination theory translated the BRSQ items into French. Secondly, 22 (10-12 y. old) children answered the French version of the BRSQ and evaluated the clarity of its items. Statistical analysis permitted to retain 26 valid items. Thirdly, a study involving 601 (12-14y. old) children examined the construct validity of the translated version of the BRSQ through the use of a confirmatory factor analysis. The result was a 18-item French version of the BRSQ, with three items for each subscale. The CFA demonstrated good fit indices ($\chi^2$/df = 4.17, RMSEA = .07, ECVI = 1.40, NFI = .94, CFI = .96, GFI = .97). Within each subscale, item loadings ranged from .62 to .94. Results also attested the reliability of each subscale (Cronbach alpha coefficient ranged from .62 to .80). The interfactorial correlations express a simplex matrix, revealing a high construct validity of the French version. Despite these results, there is the need to pursue our work to increase the number of items per dimension and to improve the reliability of the introjected regulation and external regulation subscales.
A8: SELF AND SELF-ESTEEM

68. Future-oriented thinking: possible selves, self-determination and aging
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Abstract:
Future-oriented thinking represents the individuals mental constructs about future: plans, goals, daydreams, aspirations, hopes, worries, predictions, expectations, and various scenarios. This future oriented images of self can affect thoughts, feelings and behaviors in the present (Aspinwall, 2005). In this study, future-oriented thinking are explored using the possible selves theory (Markus & Nurius, 1986). The possible selves are self-representation in the future and the individuals’ ideas of what they might become, they would like to become, or what they are afraid of becoming. Possible selves influence thoughts, feelings, beliefs, behaviors and are a source of motivation toward achieving (hoped) or avoiding (feared) future oriented images of self (Waid & Frazier, 2003). This study investigated the relation between possible selves (hoped or feared), motivation towards possible selves and contextual self-determined motivation in later life with a mediation hypothesis. In fact, the possible selves motivation should represent a mediator between the other two variables. Data were collected from 81 french elderly (70.23 ± 7.20 years) living at home. The participants were invited to describe their possible selves. Next, two motivational scales were administrated: motivation toward possible selves achievement (Losier, 1996) and elderly motivation scale (Vallerand & O'Connor, 1991). Overall, the results of mediational analyses (Baron & Kenny, 1986) supported a causal mediational chain. In part, the effect of possible selves on elders contextual motivation are mediated by motivation towards possible selves. In this sense, future-oriented thinking can be useful to connect the present to the future and have several implications in present time.

69. Relation to skin and ego identity
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Abstract:
Modern culture and ethnographic researches testify that some stereotypes, related to the feminine gender roles change during history. Child identity is influenced both by conscious and unconscious gender models of mother, her rational and emotional attitude to the fact of motherhood, to the child and its gender. It is considered, that basic “obstacle” during formation of female identity for daughter is the fact that daughter and mother have the same sex. Understanding the skin as a symbol of ego and the world allows reconstructing ego-identity. The purpose of our research was to examine the coherent connections between attitudes toward a skin and typical repertoire of base conflicts, and dominant coping strategies and self-estimation. We developed a method based on preferences in a choice of “cosmetic creams”. First of all sites and catalogues of leading cosmetic companies were analyzed. A collection of 147 features was extracted, describing the action of different creams. At next stage of analysis a set of 147 generalized descriptions of creams was reduced to 39 ones. Then we carried out semantic interpretation of descriptors and extracted six categories: treatment, defense, nutrition, cleaning, relaxation (anti-stress), and age prevention. The correlation analysis data allow concluding that woman’s attitudes toward skin represent structure of ego.
70. Self-regulation through balance of self-esteem and self-attitude in midlife.
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Abstract:
This study was based on a proposal that self has different regulation levels according to level of self-knowledge integrity. Thus, self-attitude (Sardgeveladze) and self-esteem were taken as criteria for dividing our sample (women, aged 45-60, n=187) into self-regulation groups. Cluster analyses revealed 3 groups with different self-balance: (1) those, who had both high self-attitude and self-esteem; (2) those who had both low self-attitude and self-esteem; and (3) those who had high self-attitude and low self-esteem. Those groups were analyzed in terms of attitudes to future, locus control and coping behavior. Analyses showed that self-attitudes were correlated to positive perception of future, while decline in self-esteem correlated with reconceptualization of past. According to our data we could suppose that self-esteem is generally based on past experiences, while self-attitude includes self-acceptance and autonomy and is more related to self “projected” into future, “self-determining” image. Our data show that declines in self-esteem do not influence much locus of control and coping behavior, while decline in self-attitude does. Most sensitive component of locus control appeared to be control of achievements. Analyses of coping behavior showed that high level of self-regulation characteristics (high self-attitudes and self-esteem) provides most flexible system of coping behavior strategies: using maximum of constructive strategies and minimum of destructive. Meanwhile those, who had high self-attitude, but low self-esteem showed higher scores on planning of problem solving and self-control. Thus we can suppose that self-determination may be a mechanism that is actualized when self-regulation system gets unbalanced.

71. Why do teenagers engage in delinquent behaviors? A Self-determination theory and sense of self perspective
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Abstract:
Approximately 90% of teenagers are involved in delinquent activities. In response to this alarming phenomenon, much energy has been devoted to prevention and rehabilitation programs for young offenders. It has long been known that poor self-esteem is associated with negative outcomes, such as school problems and delinquency. Yet, the documentation pertaining to personal perceptions now offers more sophisticated constructs, such as self-esteem stability and self-concept clarity, and it would be very interesting to assess their impact on delinquent values and motivation towards delinquency. The goal of the present project was thus to examine the relationships between self-esteem stability, self-concept clarity, delinquent values and motivation to perform delinquent behaviours. In Study 1, 36 juvenile offenders participated in a qualitative interview. Results revealed that low self-esteem stability and low self-concept clarity were significantly associated with delinquent values, and with self-determined motivation for delinquency. In Study 2, 428 high school students completed a research questionnaire. The associations between the variables under study were analyzed using structural equations modeling. Self-esteem stability was positively related to self-concept clarity, which was, in turn, negatively associated with delinquent values. Finally, delinquent values were positively related to motivation toward delinquency. The global fit of the model was satisfactory. Results are discussed in terms of their implications for future research and applied interventions designed to understand and counter juvenile delinquency.
72. The reciprocal relationship between mindfulness and autonomy in Chinese

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Abstract:
Mindfulness and autonomy positively correlate to each other (Brown & Ryan, 2003). Regardless of the degree of implicit autonomy, participants reporting higher mindfulness explicitly experience more day-to-day autonomy (Levesque & Brown, 2007). Nevertheless, the mechanism of the causal relationship between mindfulness and autonomy is still unclear. This article hypothesized that mindfulness and autonomy may trigger each other, and then become a reciprocal relationship. We assessed this hypothesis by testing whether mindfulness and autonomy bidirectionally and prospectively predict one another. One hundred and three undergraduates completed mindfulness attention awareness scale (MAAS; Brown & Ryan, 2003) and basic psychological needs scales (BPNS; Gagné, 2003) in two sessions during two months apart. Results revealed that MAAS at time 1 (T1) positively correlated to T1 autonomy (r = .47, p < .01), MAAS at time 2 (T2) also correlated to T2 autonomy (r = .45, p < .01). Additionally, T1 autonomy predicted T2 MAAS (β = .43, p < .01), the relationship reached the significance after controlling T1 MAAS (β = .20, p < .05). T1 MAAS also predicted T2 autonomy (β = .38, p < .01), the relationship remained significant after controlling T1 autonomy (β = .19, p < .05). The change of autonomy from T1 to T2, furthermore, correlated the change of MAAS from T1 to T2 (r = .28, p < .01). These findings provide prospective evidence to support the mechanism of bidirectional relationship between mindfulness and autonomy.

73. The Mindful Attention Awareness Scale (MAAS) French validation: Convergent and divergent validity

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Abstract:
The aim of this study is to examine the psychometric properties of the MAAS among a French sample. The MAAS was translated into French, with the authorization of its authors, following a careful cross-cultural translation and validation methodology and was completed by a sample of psychology undergraduates (N = 346). Exploratory factor analysis (principal-factor maximum likelihood) found a single factor solution (Cronbach α = .81). Positive correlations were found with well-being (SWLS), optimism (LOT-R) and self-esteem (RSES). The MAAS convergent validity is showed by positive correlations with the Big Five personality traits (D5D): Conscientiousness, Openness and Emotional Stability. Finally, as expected, the MAAS was strongly and inversely related to depression and to suicidal ideation (GHQ-28). These findings indicate that the French translation of the MAAS presents good psychometric adequacy and validity. Further research with clinical samples is needed to test its clinical utility.
74. Examining and explaining the mindfulness – stress resistance relation
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Abstract:
Mindfulness – a receptive attentiveness to present events and experience – has been associated with psychological well-being and preliminary evidence suggests that mindfulness promotes more adaptive emotion regulation (Brown, Ryan, & Creswell, 2007). Brown and Ryan (2003) showed that mindfulness also predicts autonomy - motivation to behave in a self-directed manner – and in turn, autonomy has been shown to enhance self-regulation, including emotion regulation (Ryan & Deci, 2000). This suggests a psychological pathway from mindfulness to autonomy to emotion regulation. To better understand the emotion regulatory potential of a mindful disposition and the possible mediating role of autonomy in this relation, healthy adult participants (N = 66) completed laboratory social evaluative threat tasks called the Trier Social Stress Test (Kirschbaum, Pirke, & Hellhammer, 1993). In the TSST, participants perform speech and arithmetic tasks before a panel of critical evaluators. Emotional responses to the TSST were measured at pre-TSST baseline and at two times post-TSST. Results showed that dispositional mindfulness predicted lower self-reported anxiety levels post-TSST soon after the tasks (reactivity) and at a later recovery point. Further, perceived autonomy for the tasks fully mediated the relation between mindfulness and social threat-related anxiety over the course of the TSST. These results support theory on the emotion regulatory potential of mindfulness, and suggest a mean by which this quality conduces to higher psychological well-being.

75. Need fulfillment from mindfulness leads to psychological well-being
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Co-authors: Jen-Ho Chang; Yi-Cheng Lin

Abstract:
Self determination theory argues that mindfulness enhances well-being by fulfilling basic psychological needs (Ryan, Huta, & Deci, 2008). The relationships among mindfulness, need fulfillment, and well-being, however, have not been empirically tested yet. The present study aims to test the hypothesis that need fulfillment mediates the relationship between mindfulness and well-being. Ninety-six undergraduates completed mindfulness attention awareness scale (MAAS; Brown & Ryan, 2003), basic psychological needs scale (BPNS; Gagné, 2003), and a serial of positive and negative indices of psychological well-being. Results showed that MAAS had reliable associations with autonomy, competence, relatedness, and the measurements of well-being. Moreover, autonomy, competence, and relatedness correlated to the measurements of well-being. Mediation analyses showed that BPNS fully mediated the relationships between MAAS and each of the following measurements, such as Chinese Happiness Inventory, positive affects, and 4 subscales of PWB (autonomy, personal growth, positive relations with others, and purpose in life). BPNS also partially mediated the associations between MAAS and negative affects, CES-D, and 2 subscales of PWB (environmental mastery and self-acceptance). These results supported the view of self-determination theory that mindfulness leads to truthful basic psychological need fulfillment and subsequently promotes psychological well-being.
76. The importance of parental acceptance and mindfulness in ego quieting processes
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Abstract:
An important role of `quiet ego` in promoting every day well-being is acknowledged by small, but growing body of research. How various indicators of `quiet ego` are related between themselves and how they are influenced by parenting style of significant others is however unsolved problem. The relationships among perceiving parenting style, mindfulness, authenticity, stability of self-esteem and basic needs satisfaction were examined by testing the fit of structural equation models (N=156). A good model fit was obtained when mindfulness and perceived parental acceptance were main predictors of other variables. Mindfulness was facilitated by parental acceptance and had a significant direct impact on authenticity, basic needs satisfaction and stability of self-esteem. The results are discussed in the context of self-determination theory.

77. Are basic need satisfaction and mindfulness complementary in nature?
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Co-authors: Niko Kohls; Prof. Harald Walach

Abstract:
Self-determination theory (Deci & Ryan, 2000) stresses the importance of adequate satisfaction of basic psychological needs for achieving and maintaining psychological health and well-being. Recently, the role of mindfulness for basic need satisfaction was highlighted (Brown & Ryan, 2004; Ryan, Huta, & Deci, 2008) and underlined with some empirical support (Brown & Ryan, 2004; Brown et al, 2007). This study investigated the relationship between basic need satisfaction, mindfulness, meditation practise and psychological health as well as subjective and psychological well being. The online research (N = 380) comprised participants with and without meditative experiences. The operationalisation of the constructs employed German versions of the basic need satisfaction scale (Gagnè, 2003), the mindful attention awareness scale (Brown & Ryan, 2003) and the Freiburg mindfulness inventory (Walach et al., 2006), the general health questionnaire (Goldberg & Williams, 1988), the satisfaction with life scale (Pavot & Diener, 1993), the positive and negative affect schedule (Krohne, 1996) and Ryff's instrument for eudaimonic well being (Ryan & Keyes, 1995). Results show that need satisfaction and mindfulness both highly correlate with good psychological health and well-being (basic need satisfaction scale = .56 - .76; MAAS = .36 - .46; FMI = .43 - .56). Multiple regression analysis and multiple partial correlations support the hypothesis that mindfulness contributes to health and well-being, even after controlling for basic need satisfaction, and correspondingly that the impact of mindfulness upon health may be regarded as complementary to need satisfaction. The results fit especially well to recent literature on the relation of self-determination theory, mindfulness, and eudaimonic well being and psychological health (Ryan, Huta, & Deci, 2008; Brown, & Ryan, 2004). Implications emphasise that fostering mindfulness from within, in addition to basic need satisfaction by the social environment, substantially contributes to the psychological health and well-being of a person.
A10: PSYCHOLOGICAL HEALTH – WELL-BEING – VITALITY

78. Signature strengths’ use as a mediator of the relation between autonomous motivation and eudaimonic well-being

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Abstract:
Research in positive psychology has shown that specific character strengths (Peterson & Seligman, 2004) are associated with higher well-being (Park, Peterson & Seligman, 2004; Peterson et al., 2007). Moreover, Govindji and Linley (2007) demonstrated that one’s use of character strengths lead to higher well-being. To further extend previous results, it was hypothesized that signature strengths’ use (the five personal strengths that most accurately describe an individual) would be, over a two-month period, the mediator of the relation between autonomous motivation and eudaimonic well-being (i.e., self-acceptance, purpose in life, and personal growth; Ryff, 1989). However, controlled motivation is expected to be directly and negatively related to eudaimonic well-being. Participants (N=111) were undergraduate students that completed two online surveys separated by a two-month period. First, results from a cross-lagged analysis showed that autonomous motivation lead to an increase in strengths’ use and not the opposite. However, controlled motivation was unrelated to the use of character strengths. Second, results from structural equation modeling indicated that autonomous motivation predicted an increase in strengths’ use over a two-month period which in turn predicted higher eudaimonic well-being. On the other hand, controlled motivation was negatively and directly related to eudaimonic well-being. Overall, these results suggest the importance of signature strengths as an important mediator explaining why people with high levels of autonomous motivation experiences more eudaimonic well-being over time. Directions for future research and interventions are proposed.

79. Social support, self-determined motivations and depression in later life

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Abstract:
Depression affects a lot of elderly people. The depressed person experiences change in mood, affects, behaviors and cognitions. Depression is an illness which must be treated. Untreated, depression can induce emotional suffering and decreases quality of life in during months and even years (Bizzini, 2004 ; Blazer, 2009). In fact, depression is treated efficiently by groups of psychotherapy which improves the social support. Social support is recognized as playing an important role in depression treatment. Also, the self-determined motivation can have a positive influence on depression symptoms evolution. Social support and self-determined motivation are two important factors in older adults depression (Hays et al., 2001; Altintas & Guerrien, 2009). The purpose of this research was to study the relationships between the social support, self-determined motivation and depression in elderly with a mediation hypothesis. In fact, the self-determined motivation should represent a mediator between the other two variables. Data were collected from 83 french older adults (70,21 ± 7,33 years) living at home. The participants were invited to respond to three scales: Social Provisions Scale (Caron, 1996), elderly motivation scale (EMPA, Vallerand & O'Connor., 1991) and depression scale (CES-D, Fuhrer & Rouillon, 1989). The causal mediational chain is supported by the mediational analyses (Baron & Kenny, 1986). In part, the effects of social support on older adults depression are mediated by self-determined motivation. The present findings tend to justify a motivational approach in older adults depression treatment and has several clinical implications.
80. Religiousness and well-being – Mediation by need satisfaction?
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Abstract:
Personal religiousness is associated with well-being. However, there is still no adequate model explaining that relationship. Since well-being is not only associated with religiousness but also with need satisfaction the three constructs might be interconnected. Thus, a mediation model is investigated, in which need satisfaction is presumed to explicate the relationship between religiousness and well-being. 74 religious and nonreligious German adults completed questionnaires on the intensity of their religiousness, need satisfaction and their well-being. Need satisfaction was measured with two instruments which examine the same needs with similarly formulated items. That offers the possibility to measure not only the quality of need satisfaction but also the desired quantity of the single needs. Results show that religious adults reported greater well-being than nonreligious. The meditational influence of need satisfaction was by trend significant. The examination of quality and quantity of need satisfaction indicated that the greater well-being of religious people cannot be traced back to a lower desired quantity of the single needs. Further influencing variables (e.g. marital status, social support via group membership, educational achievement) are considered. Implications, such as regarding religiousness as a possible resource in contexts like psychotherapy are discussed. Altogether the relationship between religiousness and well-being can partly be explained by need satisfaction, whereas further variables influence the complex interplay between the single constructs.

81. Russian adaptation of Subjective Vitality Scales: a preliminary report
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Abstract:
Presented are the results of Russian adaptation of Subjective Vitality Scales, state and trait version (Ryan & Frederick, 1997), translated into Russian without changes. The subjects were 55 high school students and 268 university students from Russia and Uzbekistan, 15 to 25 years old, 30 of them were university students with chronic disabilities. In four studies we checked interrelations between subjective vitality and other variables. In the first study we found that subjective vitality, as well as hardiness (Maddi, 2001), predicts academic performance. In the second study the interrelations between traumatic experiences, subjective vitality, hardiness, life satisfaction (Diener et al, 1985), tolerance to ambiguity (McLain, 1993) coping-strategies (Lazarus & Folkman, 1984), social support (Sarason et al, 1990) and posttraumatic growth (Calhoun & Tedeschi, 2006) were analysed. The different role of Subjective vitality played different role in coping with stress and posttraumatic growth for healthy and physically challenged students. In the third study we found that higher vitality in high school students is associated with internal locus of control, and the latter mediates the relationships between subjective vitality and MMPI scores. In the fourth study we found some cross-cultural differences for the samples of Russian-speaking students from Russia and Uzbekistan. The results allow us to state that Russian translations of Subjective vitality scales are instruments of high diagnostic and prognostic value.
82. On the relation between self-enhancement and psychological well-being: The moderating role of passion

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Abstract:
Vallerand et al. (2003) developed a Dualistic Model of Passion wherein passion is defined as a strong inclination toward a self-defining activity that one loves, values, and in which one invests time and energy. Furthermore, the model proposes two distinct types of passion: harmonious (HP) and obsessive (OP) passions that generally predict adaptive and less adaptive outcomes, respectively. In the present research, we were interested in understanding the moderating role of passion on the relation between self-enhancement (Sedikides & Gregg, 2003; 2008) and hedonic and eudaimonic well-being (Ryan & Deci, 2001). Individuals with an OP come to develop ego-invested self-structures toward the passionate activity (Hodgins & Knee, 2002). Therefore, feeling excessively positive about oneself should enable obsessively passionate individuals to satisfy the contingencies attached to the activity and, thus, enhance hedonic (but not eudaimonic) well-being. On the other hand, individuals with a HP come to develop integrated self-structures toward the passionate activity (Hodgins & Knee, 2002). Hence, high self-enhancement should conflict with harmoniously passionate individuals’ authentic engagement style and, thus, undermine eudaimonic (but not hedonic) well-being. Regression analyses, conducted with undergraduate students (N= 120), revealed that the more people had an OP, the more the relationship between self-enhancement and hedonic well-being (but not eudaimonic) was positive. In contrast, results revealed that the more people had a HP, the more the relationship between self-enhancement and eudaimonic well-being (but not hedonic) was negative. Future research directions are discussed in light of the Dualistic Model of Passion.

83. How context-specific autonomy support influences decisions to and consequences of coming out as gay, lesbian or bisexual

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Abstract:
Disclosing one’s sexual identity (coming out) involves potential risk and benefit for a lesbian, gay or bisexual (LGB) individual, though research thus far has largely concluded that the mental health benefits outweigh the risks. The present research uses a self-determination theory (SDT) framework to take a closer look at the relationship between coming out and mental health in different life spheres by examining autonomy support provided by family, friends, school peers, coworkers, and religious community. Findings reveal that individuals were more out in contexts that were more autonomy supportive, and that more outness was associated with better well-being. Results also indicate that while there were significant mental health benefits to coming out in contexts high in autonomy support, there were no such benefits to coming out in contexts low in autonomy support. Discussion considers the implications for clinicians working with LGB individuals in their decision to come out, and the future research needed to look at potential detriments to coming out in autonomy unsupportive contexts.
84. Self-determination of a person in choosing the strategy of psychological work with the loss
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Abstract:
In this study we observe strategies of psychological work with the loss. There are two main strategies of such work. The first one can be described by metaphor "Goodbye" and supposes the main aim of the psychological work is to end the situation of a loss; to say “Goodbye!” to a close person forever. The second strategy can be described by metaphor “Saying hello again” and suggests us to transform relations with a close person, who has died, and then include these new relations in the present. Both of these strategies have shown their effectiveness in different cases. We suppose that the specificity of the self-determination system of a person can help in choosing between these two strategies of psychological work with the loss. We suppose the person’s self-determination to include the time-perspective as a strategy of difficult life situation overcoming, and the coping as tactics of their overcoming. According to our investigations (case study) the first strategy can be more effective with those, who tend to focus on their present or future, which they imagine in bright colours. It’s easier to leave remembering in the past and to continue to live their lives for such people. The second strategy can be more effective with those, who tend to focus on the positive aspects of the past. This strategy lets them use their remembering as a coping resource and continue time perspective into the future by including new transformed relations with the close person, who has died.

85. To be visible or invisible: Effects of support visibility on adjustment to stress from a Self-Determination Theory perspective
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Abstract:
Social support has been a highly studied topic within psychology over the last four decades. Indeed, a good deal of previous work indicates that social support is important for a variety of mental health outcomes. Further, evidence suggests that even the perception of support availability has positive outcomes. Recent work on visible and invisible support (Barrera, 1986; Bolger, Zuckerman, & Kessler, 2000; Bolger & Amarel, 2007; Gleason, Iida, Bolger, & Shrout, 2003) has produced interesting findings. Specifically, visible support is defined as support where the recipient is aware of receiving support or assistance. Invisible is defined as support where receiving support goes unnoticed. Previous work has suggested that visible support can actually be deleterious to psychological well being. This is in contrast to invisible support which seems to have benefits for recipients. The current research seeks to explain previous findings within a Self-Determination Theory (SDT) framework. First, we seek to replicate the effects found in previous work, particularly in Bolger & Amarel (2007). We will then investigate motivational factors contributing to their findings. That is, we hypothesize that much of the deleterious effect of support visibility can be attributed such support typically being provided in a controlling, non-autonomy supportive way.
86. Self-Determination and well-being
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Abstract:
The present study aimed to bring together the self-determination perspective on eudaimonia (Ryan, Huta & Deci, 2008) with the existing approaches to eudaimonic well-being (Waterman, 1993) and assess the contribution of eudaimonia to subjective well-being. A modified twelve-item Russian version of Self-Determination Scale (SDS: Sheldon, 1995) was tested on a large Internet sample (N=1092). The overall scale was reliable (alpha=.85). A three-factor model fit the data well, allowing to form three subscales: Perceived Choice (5 items, alpha=.82), reflecting the degree to which one feels their activities are of their own choice; Personal Expressiveness (3 items, alpha=.73), reflecting the experience of expressing oneself in one’s activities; and Authenticity (4 items, alpha=.68), reflecting the feeling that one’s life, appearance, and people around really fit oneself. The correlations between the subscales were in the .42 to .55 range. Structural equation modeling was used to establish the association between the components of self-determination and subjective well-being (Subjective Happiness Scale by Lyubomirsky & Lepper, 1999, and Satisfaction with Life Scale by Diener et al., 1985). The chosen model (N=823, RMSEA=.042, CFI=.971) confirmed that the association between perceived choice and subjective well-being was fully mediated by personal expressiveness and authenticity, which explained together 56% of the subjective well-being factor variance. The data indicate that self-determination (living one’s own choices) predicts eudaimonic well-being (experiences of personal expressiveness, authenticity), which reflects itself in non-specific experiences of subjective happiness and life satisfaction.

87. Leisure motivation, vocational identity and quality of life in a sample of Portuguese university students
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Co-authors: Maria de Lurdes Mateus

Abstract:
Experiencing and performing various roles should be perceived by young adults as a benefit which enables the acquisition of both the knowledge and the life skills required to help them cope with the challenges they face in transitional moments. This study aims to assess the different types of motivation underlying personal involvement in leisure activities, their impact on the vocational identity and perceived quality of life in a group of university students. Data was collected via the use of an Individual Characterisation Worksheet, a vocational identity scale (My Vocational Situation – IV), a leisure motivation scale (Leisure Motivation Scale - LMS) and a questionnaire to assesses the quality of life (World Health Organization of Quality of Life – WHOQOL-100). The sample was composed by 280 university students living in academic residences, who were attending several majors lectured at the University of Coimbra, Portugal. The results globally demonstrate that these students have an autonomous leisure regulation, although their most salient leisure activities were considered as requiring a low degree of challenge and were carried out in low structured contexts. Students with different socio-demographic and academic characteristics also differed on some leisure motivation and quality of life dimensions. There were no differences between groups in the vocational identity dimension. Measure results also indicate that the three dimensions under study – leisure motivation, vocational identity and quality of life – are interrelated. More self-determined leisure activities have a positive impact on the vocational identity dimension and also on the perceived quality of life.
88. Well-being and feelings of competence of children with dyslexia

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Co-authors: Andju Sara Labuhn

Abstract:
Dyslexia frequently affects children during their primary school years. Apart from their core symptoms, dyslectic children often suffer from a variety of co-occurring behavioral and emotional problems (Maughan & Carroll, 2006). Unfortunately, little is yet known about the exact nature of the associations between dyslexia and the co-occurring problems. Self-Determination Theory suggests that feelings of competence are essential to human well-being (Ryan & Deci, 2000). Due to the experience of academic difficulties of dyslectic children their feelings of competence may be affected and may lead to emotional and behavioural problems. The aim of our study was to examine behavioral and emotional problems among children with dyslexia and their relation to academic self-concept, as an indicator of feelings of competence. Participants were 27 children with dyslexia and 19 controls, all attending fourth grade of a primary school. We assessed children’s academic self-concept using items from the TIMSS-Study (Köller, Schnabel & Baumert, 2000) and psycho-social adjustment using the Strenghts and Difficulties Questionnaire for parents (Goodman, 1997). Our findings suggest that children with dyslexia exhibit more behavioral and emotional problems than the controls. Furthermore, children with dyslexia showed a more negative academic self-concept than the controls.

89. Psychological health and well-being

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Abstract:
Good health helps us to keep our bodies and minds in a fit state. Good food plays a key role in good health. Proteins, Calcium, Carbohydrates, Vitamins, Minerals, Water, Fibers and Fats help our bodies to become strong and healthy Sugars and starch are all carbohydrates. Fats are good insulators. It helps animals keep warm. Fats have a great deal of energy and so it makes an ideal food state. Various types of food items are available today. As we know there are two different types of food that we take in, they are fast food and heal the food. Fast food is the type of food which contains different types of food chemical and also a large amount of oil and fat. Fast food is the most convenient type of food that is available around the world because it can be easily made, than homemade foods, which are healthy. Some of the different types of chemicals in fast food could be harmful to our bodies. When all such chemicals get together in our bodies they malice us weal and sometimes we could even contract different kinds of dangerous diseases. Healthy food is mostly prepared in our own homes. As we know healthy food does not contain any type of chemicals harmful to our bodies. Fresh green vegetables, fresh fruits and different kind of leaves that we take as food in our day-to-day lives are healthy food. Too much of salt in our food could damage our kidneys. But salt is also important because it makes nerves in our body work. There are other ways through which our health could be destroyed. Smoking, Consuming alcohol and taking harmful drugs are three of them. To have good health we also need to do exercises. With good health we can have good memory and a better future.
90. The role of traditions in self-determination  
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Abstract:
The processes of dynamic development and reforms in Russia cause many social factors that have an influence on life strategy of person and its self-determination. Therefore, the phenomena that have stable nature such as tradition (holiday celebrations and rituals) could be considered as forming person’s world-view. Our empirical investigation of social representations about holiday (based on surveys of young people from four Russia regions - Moscow, Smolensk, Kalmykia, and North Caucasus) allowed us to make the following conclusions: the representations about holiday are connected with moral and ethic values of young people. Holiday activity not only enriches the person with deep emotions but also has forming influence on the scope of ideals, values, ethic, moral and esthetic qualities of personality. Social and psychological phenomenon of holiday plays the crucial role in forming of the group identity, for example ethnic holiday forms ethnic person identity. Some official holidays are accepted on personal level but some of them don’t leave imprint on personality. The regional specificity of holiday perception was detected in North Caucasus region. Holidays more than everyday life gives person opportunity to understand underlying categories related to the meaning of life, spiritual and moral values, self-determination and strategy of life.

91. Exploring expertise in gaming: A self-determination approach  
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Co-authors: J. Jansz; E.S.H. Tan

Abstract:
This paper addresses the structure of gamer motivation in relation to self-ascribed expertise in video gaming, trying to find out what is special to experienced video gamers’ motivation. Additionally, it attempts to show how different motivational structures determine persistence in video gaming. Self-Determination Theory (SDT) as postulated by Deci and Ryan (2000) offered a useful theoretical framework for explaining this phenomenon in different expertise groups by relating needs (i.e. competence, autonomy and relatedness) via regulation to persistence. We used Guay, Vallerand and Blanchard’s (2000) situational motivational measure (SIMS) to assess the regulation constructs of intrinsic motivation, identified regulation, external regulation and amotivation. Ryan, Rigby and Przybylski’s (2006) measure (the Player Experience of Need Satisfaction or PENS) was used to evaluate the need for competence, autonomy and relatedness in gaming. As both measures are derived from SDT this enabled us to integrate them into one overall model. Our results (n=2025) show that the motivational structure regarding persistence was as expected. Hardcore gamers (i.e. high level of expertise) scored highest on intrinsic motivation and identified regulation. Furthermore, this group scored highest when it came to needs satisfaction. Persistence was found to be highest with the hardcore gamers as well. Surprisingly, however, satisfaction of needs was seen to have a stronger effect on persistence than the regulation mode.
SYMPOSIA

SYMPOSIUM 1A

Autonomy support: Critical elements and differentiation from other contextual supports
Chair: Avi Assor

Symposium Abstract:
Past research has identified at least four aspects of autonomy support: minimizing control, empathic perspective taking, choice and provision of rationale. While these elements were found to promote many positive outcomes, there are several issues with regard to the conceptualization of autonomy support that may benefit from further clarification and research. In this symposium we would focus on three such issues: (a) What are the elements of autonomy support that are critical and unique to this concept and are less central to the support of other needs?, (b) How can we concretize the “classic” elements of autonomy support so that people can grasp and apply them successfully, (c) Is autonomy entirely distinct from independence or perhaps there might be some overlap between these concepts? The discussant, Assor, would address the three questions by relating to the research and ideas presented by the four presenters, as well as by briefly raising some further points concerning (1) additional elements of autonomy support that might be essential for the development of a sense of autonomy, capacity for autonomy and autonomous functioning in one’s life, (2) the potential contribution of capacity for self-reliance to perceived autonomy.

Contribution 1
Contrasting autonomy-support with the promotion of independence
Name: Bart Soenens
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Co-authors: Maarten Vansteenkiste; Wim Beyers; Stijn Van Petegem

Abstract:
From different models in the socialization and developmental literature it is argued that parents need to encourage their children to become independent, that is, to distance themselves from their parents and to become self-reliant. This striving for independence from parents may, at least temporarily, come at the cost of closeness and warmth in the parent-child relationship. Contrary to this notion of ‘promotion of independence’, in SDT it is argued that autonomy-supportive parents do not necessarily require independence from their children. Autonomy-supportive parents are attuned to their children’s needs and encourage their children to behave on the basis of self-endorsed values and goals. They do so by providing meaningful rationale, by providing choice whenever possible, and by refraining from controlling tactics. Autonomy-support, as understood within SDT, is not at all incompatible with closeness and warmth. In this presentation, it is argued that both parental promotion of independence and parental promotion of dependency (which represents the opposite of promotion of independence) may be conveyed in an autonomy-supportive or in a controlling fashion. Thus, by crossing promotion of independence (versus dependence) with autonomy-support (versus control), four parental orientations can be discerned: (a) autonomy-supportive independence, (b) controlling independence, (c) autonomy-supportive dependence, and (d) controlling dependence. This presentation will provide an overview of empirical evidence for this 2x2 framework. Specifically, it will be discussed how each of the four orientations in this framework relates to well-established and prevailing constructs in the parenting and developmental literature, such as overprotection, pathological separation, enmeshment, and emotional reliance. Also, empirical evidence will be discussed showing that parental autonomy-support is more essential for children’s and adolescents’ well-being and adjustment compared to promotion of independence. Finally, the relevance of this framework for the study of age-related and cultural differences in autonomy-support will be discussed.
Contribution 2

**Autonomy support at home: The potential benefits of a broad and concrete operationalization**

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Co-authors: Geneviève Mageau; Renée Landry

**Abstract:**
Autonomy-support has typically been defined as the provision of three key elements: empathy, rationale and choice (Koestner, Ryan, Bernieri & Holt, 1984). This operational definition, inspired from Ginott’s empathic limit-setting (1969; 1971; 1975), has proven useful in many studies on internalization. The aim of the project that will be presented was to implement and evaluate a parenting workshop based on Ginott’s work (Faber & Mazlish, 1975; 1980). Not only does this workshop seem to convey the essence of autonomy support, but it does so in a broad and concrete manner. Keeping the definition of self-determination in mind, an overview of this material taught to parents will be made, with a focus on components that have been less emphasized in the academic literature, such as feedback, praise, questions, answers, expressing feelings and problem-solving. Underlying themes will be highlighted, such as unconditional regard. Second, concrete examples will illustrate how autonomy support can be beneficial throughout the day, not solely when making requests. Third, some nuances about some of the “classical” components of autonomy support will also be suggested (e.g. rationale for children). Finally, results from the first groups of parents who attended this workshop will be presented. The potential benefits of using a broader conceptualization of autonomy support to foster its application in everyday life will be discussed.

Contribution 3

**Differentiating autonomy support from structure and integrating the two in the learning context**

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**Abstract:**
The concept of autonomy support is well understood in terms of both its theoretical conceptualization and practical application. Still, two key questions remain—namely, what are the essential and defining elements of autonomy support and in what ways can the provision of autonomy support be differentiated from the provision of structure? To address these two questions, the current presentation first identifies the essential components of autonomy support that have been empirically validated to predict students’ perceived autonomy and positive functioning. Following this introduction, Study 1 shows how these essential components of autonomy support uniquely predict student outcomes above and beyond elements of structure. Study 2 shows that, while autonomy support and structure are theoretically and practically distinct concepts, the two can be integrated to produce optimal classroom practice in terms of fostering positive student functioning. In practice, integrating the two often means starting with a well-structured lesson plan and then administering that lesson plan in a highly autonomy-supportive way. The three-fold conclusion is that (1) autonomy support and structure support students’ learning and positive functioning in different ways; (2) student outcomes are particularly positive when teachers find ways to integrate each of the four essential components of autonomy support into a well-structured lesson, and (3) autonomy support and structure are both classroom necessities (rather than luxuries).
Contribution 4
Perceptions of coaching interpersonal style, psychological needs, and psychological well-being in competitive athletes

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Co-authors: Kim Bartholomew; Cecilie Thogersen-Ntoumanis

Abstract:
The paper has four aims. The first is to present the development and psychometric validation of a multidimensional measure of controlling coaching behaviors in sport. Four factors were identified through a series of four studies: controlling use of rewards, negative conditional regard, intimidation, and excessive personal control. The second aim of the paper is to discuss whether low scores on measures of psychological need satisfaction adequately tap the intensity of need deprivation that Deci and Ryan (2000) describe as states of need thwarting. Through a series of three studies, the paper will present the development and validation of a measure designed to tap perceptions of active thwarting of the needs for autonomy, competence, and relatedness by coaching behaviors. The third purpose is to present findings from a study that examined the concurrent relationships between perceptions of autonomy-supportive and controlling coaching behaviors, psychological need satisfaction and thwarting, positive and negative affect, and burnout symptoms in competitive sport. Structural equation modeling analysis using a sample of 294 athletes competing at club through to international level supported a latent factor model in which autonomy supportive behaviors were better predictors of need satisfaction than thwarting. Coach control predicted need thwarting only. Positive affect was predicted by need satisfaction only, whereas negative affect and burnout were better predicted by need thwarting than need satisfaction. The final purpose of the paper is to discuss the implications of the findings for the measurement and operationalization of interpersonal styles and psychological needs in sport and other life domains.

SYMPOSIUM 1B
The fifth “mini-theory” of SDT: Intrinsic and extrinsic goal contents in theory, research, and application
Chair: Richard Ryan

Symposium Abstract:
Since the early work on intrinsic and extrinsic goal contents by Kasser and Ryan (1993;1996) there has been a rapid expansion of research on this topic. In multiple domains the effects of relative intrinsic versus extrinsic aspirations and attainments have been shown to affect important outcomes concerning motivation, integrity and wellness. In this symposium, the chair and the speakers will reflect on the progress in this domain, the reasons behind differentiating this area of inquiry as a formal “mini-theory” and the gaps in knowledge that remain. They will also present recent data to illustrate both findings and future directions, and what such data suggests about human nature.
Contribution 1
On the origin of goal content
Name: Frederick Grouzet
Organization: University of Victoria, Canada
Email: fgrouzet@uvic.ca

Abstract:
The Self-Determination Theory (Deci & Ryan, 2000) proposes that the content of life goals could be characterized as intrinsic or extrinsic. Examples of extrinsic goals are the desires to be wealthy, popular, physically attractive and conform to others’ expectations. Intrinsic goals may include striving for personal growth and health, developing nurturing relationships and fostering community involvement (Grouzet et al., 2005; Kasser & Ryan, 1993). The consequences of actively pursuing intrinsic vs. extrinsic goals are well-known. But what are the origins of life goal contents? How do individual choose and/or internalize life goals? What are the psychological processes that could explain the development and changes of goal contents across the life-span? The aim of this presentation is to briefly review existing models (and the associated empirical evidences) that were proposed by Self-Determination Theory researchers (e.g., Kasser, 2002; Kasser et al., 1995; Sheldon & Kasser, 2008; Weinstein et al., 2009). In a majority of these models the origin of goals is directly related to the fulfillment of psychological needs or other basic needs. In personality social psychology, alternative theoretical frameworks were also proposed to explain the origin of goals. These models put more emphasis on the role of personality and information processing. In order to shed a light on the origin of goal contents, a set of longitudinal studies was conducted to compare SDT and other personality and social psychological models. Results from these studies will be presented and an integrative model will be proposed.

Contribution 2
Understanding the effects of intrinsic and extrinsic goals on performance, identity integration, and bulimia: The role of micro-mediational mechanisms
Name: Maarten Vansteenkiste
Organization: Ghent University, Belgium
Email: Maarten.Vansteenkiste@ugent.be

Abstract:
Within SDT, a qualitative distinction is made between intrinsic goals, including community contribution, health, self-development and affiliation, and extrinsic goals, including financial success, power, social recognition and physical appeal (Kasser & Ryan, 1996; Vansteenkiste, Deci, & Lens, 2006). The pursuit of intrinsic, relative to extrinsic, goals is said to be conducive to the satisfaction of one’s basic psychological needs for autonomy, competence, and relatedness, but few studies have directly examined this hypothesis. Recent research is reviewed which indicates that the association between intrinsic, relative to extrinsic, goal related dieting and bulimic symptoms among dieters and the relation between intrinsic, relative to extrinsic, goal attainment and ego-integrity vs. despair among senior adults can be accounted for by basic need satisfaction. Further, a number of micro-mediational mechanisms are proposed that help to uncover the differential linkage between intrinsic, relative to extrinsic, goal contents and basic need satisfaction (i.e., attentional shift, social comparison, objectifying stance; Vansteenkiste, Soenens, & Duriez, 2008). Experimental research on intrinsic and extrinsic goal framing and performance and persistence that provide evidence for these micro-mediational processes is reviewed.
Contribution 3
A programme of work exploring the “what” of exercise goals
Name: Simon Sebire
Organization: University of Bath, UK
Email: s.j.sebire@bath.ac.uk

Abstract:
The central role that regular exercise plays in fostering positive physical and mental health in adults makes understanding the motivational processes underpinning adaptive engagement an important avenue of work. Past research examining exercise motivation has tended to focus on the “why” (or behavioural regulation) rather than the “what” (or content) of exercise goals. In this presentation, results from a series of studies using quantitative and qualitative methods designed to extend previous research in life aspirations (Kasser & Ryan, 1993, 1996) to the study of exercise goal content will be discussed. In Study 1, cross-sectional data from 410 exercisers revealed (i) that intrinsic relative to extrinsic goal content predicted significant proportions of variance in adaptive exercise-related cognitive, affective and behavioural outcomes and (ii) that these associations were partially mediated by psychological need satisfaction. The effect of goal content on cognitive and affective (but not behavioural) variables remained significant above and beyond autonomous exercise behavioural regulation. In Study 2, data (N = 101) from a prospective investigation incorporating objective behavioural assessment were used to identify a motivational sequence in which relative intrinsic goal content led to engagement in health-enhancing bouts of exercise behaviour via autonomous behavioural regulation. In Study 3, qualitative analysis of semi-structured interviews with 11 exercisers revealed potential cognitive-attentional mechanisms underlying the divergent effects of intrinsic and extrinsic goal pursuit in Studies 1 and 2. Collectively, our findings support the value of considering the content as well as the regulation of exercisers’ goals. Future research directions will be discussed.
WORKSHOPS

Autonomy-support

Title: Antecedents of autonomy support: What allows parents and teachers to be autonomy supporters?

Organizers: Guy Roth

Readings

Development of intrinsic and extrinsic goals

Title: The Development of intrinsic and extrinsic goals and values: Human tendency, environment and free will

Organizers: Fred Grouzet

Readings

Work & organizations

Title: The motivational effects of currently used compensation systems in organizations

Organizers: Marylène Gagné & Jacques Forest

Readings
Integrated regulation

Title: The measurement and validation of the integrated regulation concept: Is it possible and if it is, how should we do it?

Organizers: Luc Pelletier

Readings

Parenting

Title: Clarifying SDT’s approach to basic parenting dimensions and the internalization process

Organizers: Mireille Joussemet, Wendy Grolnick, Geneviève Mageau & Avi Assor

Readings

SDT-based interventions in health care

Title: From theory to practice: SDT interventions in health care and health behavior

Organizers: Heather Patrick & Geoffrey Williams

Readings

Sport

Title: Relevance and application of SDT in the context of sport

Organizers: Nikos Ntoumanis & Robert Vallerand

Readings
SESSION 3A
Qualitative Studies on Need Satisfaction
Chair: David Markland

Contribution 1
Role of self-determined motivation in rehabilitating professional rugby union athletes from ACL injury
Name: Remco Polman
Organization: University of Central Lancashire, UK
Email: RCJPolman@uclan.ac.uk
Co-authors: Fraser Carson

Abstract:
The aim of the present study was to discover how the three needs identified by self-determination theory were experienced by injured athletes and to ascertain how these constructs assist rehabilitation and subsequent return to play. Participants: Five professional rugby union players, who had suffered anterior cruciate ligament (ACL) injury that required surgical intervention. Design: A longitudinal, qualitative dominant, mixed method. Method: Concurrent with each player’s rehabilitation, consisting of twice monthly interviews, a self-report diary and three established questionnaires (MOS-Social Support Survey, Sherbourne & Stewart, 1991; Sport Climate Questionnaire, Deci & Ryan, n.d.; Injury Rehabilitation Questionnaire, Deci & Ryan, n.d.) were completed. Results: Content analysis was conducted on three distinct phases (Early Limited Participation phase, 10 higher order themes; Late Limited Rehabilitation phase, 11 higher order themes; and Return to Play phase, 9 higher order themes) highlighting issues related to autonomy, competence and relatedness. Conclusions: Obtaining an in-depth understanding of the injury and rehabilitation process increases self-regulation and provide a sense of control for the injured athlete. Having an input into the rehabilitation program assisted the players during rehabilitation, particularly as it reduced frustration of repetition of exercises. However, caution needs to be taken as strict ACL rehabilitation protocols could reduce the amount of perceived autonomy experienced by each player. Increasing physical and performance proficiency developed competence and motivated these players to continue during difficult periods of the rehabilitation. Further, keeping each player involved within the team setting increases relatedness and reduces feeling of isolation and loneliness.

Contribution 2
Retirement and intrinsic need satisfaction: understanding well-being trajectories in later life
Name: Oliver C. Robinson
Organization: University of Greenwich, UK
Email: o.c.robinson@greenwich.ac.uk
Co-authors: Jim Demetre; Ros Corney

Abstract:
Research has shown that retirement from full-time work can be experienced as a liberating time for some individuals, while others experience little sense of change through retirement or may experience a sense of decline (Wang, 2007). Self-determination theory provides a theoretical lens that can account for this variability in retirement wellbeing trajectories. SDT postulates three intrinsic needs as fundamental to motivation and wellbeing – the needs for competence, autonomy and relatedness. Depending on an individual’s life conditions and cognitive evaluative processes, retirement can either be seen to enhance or lessen satisfaction of intrinsic needs, and this can account for its variable effects on wellbeing. The current study employed a qualitative design that comprised 30 x 1-hour semi-structured interviews with individuals across the UK who retired between 2 and 10 years ago. The
interviews were analyzed using a thematic analysis procedure (Braun and Clarke, 2006). Four clusters of participants emerged from this analysis, each of which had definable thematic characteristics. 2 clusters, entitled ‘Maintainers’ and ‘Releasers’, considered retirement to have positive effects, and to be linked to intrinsic need satisfaction; individuals in these clusters described being autonomous, productive and socially connected in retirement. The 2 other clusters, entitled ‘Oscillators’ and ‘Decliners’, described how retirement had lessened intrinsic need satisfaction, and emphasized experiences of restriction, worthlessness and social detachment. A self-determination theory/need-satisfaction framework provides a parsimonious way of understanding wellbeing trajectories through retirement, and for potentially creating interventions to help those who experience retirement as a time of declining wellbeing.

**Contribution 3**

**Psychological needs fulfillment: A qualitative analysis**

**Name:** Krzysztof Szadejko  
**Organization:** Istituto Superiore Universitario di Scienze Psicopedagogiche e Sociali  
“Progetto Uomo”, Italy  
**Email:** sciadeico@libero.it  
**Co-authors:** Daniele Bisagni

**Abstract:**

According to self-determination theory, well-being and healthy personality development depend on the fulfillment of three basic psychological needs: autonomy, competence, and relatedness. However, various contextual features can interfere with need satisfaction and undermine well-being. The goal of the research was to explore fulfillment of three needs in a natural setting. This paper aims to examine individuals’ self determined behavior in various contexts. Dual moderator Focus Group (FG) methodology was utilized. Ten groups of people (n=85) were asked to talk about their psychological needs satisfaction within the context of their everyday life. Each conversation proceeded in an interactive group setting where participants were free to talk with other group members. Transcripts of audiotaped conversations were analyzed using Grounded Theory approach. Computer Assisted Qualitative Data Analysis (CAQDAS) was employed. Using the software MAXqda, we organized and identified emergent themes by major categories. Results showed that psychological needs fulfillment was associated with people's well being, health and integrity. In accordance with Deci and Ryan’s theorizing, the diverse contexts highlight the importance of individuals’ unique perception of the functional significance of a context. Results also revealed the presence of more needs such as security, growth, self-accomplishment, self-esteem and meaning of life. Our findings support the basic psychological needs theory and draw attention to raise awareness that the social context can either support or thwart the natural tendencies toward active engagement and psychological growth.
SESSION 3B
Openness versus Defensiveness
Chair: Pedro Teixeira

Contribution 1
Interpersonal behavior depends on targets’ self-regulation
Name: Suzanne Gurland
Organization: Middlebury College, USA
E-mail: sgurland@middlebury.edu

Abstract:
Autonomous self-regulation is associated with more positive interpersonal functioning, perhaps because perceivers respond differently to targets with more or less autonomous reasons for acting. We examined this possibility by testing participants’ behavior toward targets who differed in self-regulation. College students (n = 110) watched the video profile of a target whom they imagined was going to move to their hall and join one of their activities. The sex-matched target described him/herself as doing activities for autonomous (e.g., enjoying the job), controlled (e.g., working for the money), or ambiguous (e.g., both reasons provided) reasons. Participants left a phone message for the target “to introduce yourself, welcome him/her, and tell him/her whatever you’d like,” and rated the target’s personality on the Big 5. The autonomously regulated target was seen as more agreeable, F(2,107) = 8.01, p < .01, more open, F(2,107) = 12.54, p < .001, less neurotic, F(2,107) = 4.28, p < .05, and more conscientious, F(2,107) = 8.75, p < .001, than the other targets. Moreover, while the messages were equally friendly in all conditions, those left for the autonomously regulated target were characterized by greater relatedness, F(2,105) = 3.20, p < .05, and contained more observations about the target, F(2,105) = 6.59, p < .01, whereas those left for the control-regulated target contained more offers of help, advice, or reassurance, F(2,105) = 4.39, p < .05. The findings suggest that targets’ self-regulation affects perceivers’ interpersonal behavior and personality assessments. Thus, the association between autonomous regulation and more positive interpersonal functioning is partly explained by direct interpersonal responses to perceived self-regulation.

Contribution 2
Chronic death-thoughts, worldview defense, autonomy and self-regulation
Name: Daniela Niesta Kayser
Organization: University of Rochester, USA
Email: dniesta@psych.rochester.edu

Abstract:
Death-thoughts are an attribute of mortality salience long believed to engender a variety of automatic defensive reactions such as in-group favoritism and out-group derogation. This research provides a theoretical and empirical examination of the role of dispositional death-thought cognitions (DTC) in worldview defenses, sense of autonomy and self-regulation. Correlational, quasi-experimental, and laboratory studies show that the dispositional death-thought cognitions measure a unique quality of mortality salience that parallel effects found using situational inductions of mortality salience. Thus, chronic thinking of one’s own death appears to be stable over situational influences and may be engendered in the person. Both dispositional and state mortality salience predicted lower self-esteem, lower sense of autonomy and relatedness. In this sense, death thoughts impair both the sense of self-regulated activity and the fulfillment of basic psychological needs, and foster the tendency toward automatic defensive reactions.
Contribution 3
Autonomous and controlled regulations for religious behaviors: Examining their correlates and antecedents
Name: Bart Neyrinck
Organization: University of Leuven, Belgium
Email: bart.neyrinck@psy.kuleuven.be
Co-authors: Willy Lens; Maarten Vansteenkiste; Bart Soenens

Abstract:
In this paper, a program of research is discussed involving various studies. First, we empirically investigate the relation between people’s autonomous and controlled motivation of religious behavior and their religious orientations as distinguished in the psychology of religion (i.e., Allport’s intrinsic and extrinsic and Batson’s quest orientation). Second, based on Hodgins and Knee (2002), we explored the relation between autonomous and controlled regulation of religious behaviors and people’s open versus defensive functioning. In the religious realm, this is operationalized by people’s cognitive approach of religious contents, which could be more rigid, literal, defensive versus more symbolic, flexible, open. This cognitive approach can be distinguished from people’s belief in a transcendent reality. In three Flemish samples, we found that more autonomous regulations of religious behaviors to be positively related to a more symbolic approach, to greater inclusion of transcendence and higher well-being. In a subsequent study, we replicated these relations in a sample of Polish university students. Furthermore, Polish participants which were clearly more literal in their approach, displayed more introjected religious regulation and lowered well-being. Interestingly, mean-level differences in well-being between both countries could be accounted for by the stronger presence of introjected motives. In a final study, we explored the perceptions of God as more autonomy-supportive (empathic, responsive and providing choice) or more controlling (punishing, rewarding, conditionally regarding) as antecedents of people’s motivation, religious approach and well-being. As predicted, perceptions of God as autonomy-supportive were associated with more autonomous regulation and more flexible interpretation of belief contents, which in turn predicted higher well-being. In conclusion, both autonomous regulations of important religious activities and a more flexible, symbolic approach of religion is found to be most adaptive, and should be facilitated. Regarding the latter, autonomy-support can be forwarded as stimulating personal and critical reflection on one’s own religious behavior and religious themes.
SESSION 3C
The dynamics of self-determined motivation in different cultural settings
Chair: Valery Chirkov

Contribution 1
Learning experience: Evidence from a collectivistic society
Name: Haya Kaplan
Organization: Ben-Gurion University, Israel
Email: kaplanp@bgu.ac.il
Co-authors: Avi Assor; Haled Elsaied; Yaniv Kanat-Maymon

Abstract:
The present study was conducted in view of the lack of sufficient evidence regarding the importance of autonomy support and suppression for students in collectivist-hierarchical cultures. The study examined the effects of students’ perceptions of autonomy support and suppression by teachers on students’ optimal learning experience: autonomous motivation, a-motivation, exploratory motivation, future orientation, grades and engagement in learning, while controlling for students’ sense of competence and students’ grades at the end of the year preceding the study. We also controlled for various background variables: age, gender and subject of study. Multiple regression analysis was conducted. Results from 323 Bedouin-Israeli students in 7th-11th grade indicated that autonomy support has unique positive effects on students’ engagement, autonomous motivation, exploratory motivation and future orientation, while autonomy suppression has unique negative effects on the younger students’ grades and unique positive effects on a-motivation. The role of autonomous motivation and a-motivation as mediators of the effects of autonomy support and suppression on students’ outcomes were examined and confirmed. In general the results demonstrate that in comparison to boys the learning experience of Bedouin girls is much more optimal. The results suggest that autonomy is also important for students belonging to hierarchical-collectivist societies. The results are discussed in terms of Bedouin adolescents’ development in school, while stressing cultural effects. We also discuss the issue of females’ status in Bedouin society and their striving for autonomy within the boundaries of their inferior status in the Bedouin community in the present time of cultural changes.

Contribution 2
Motivation to learn English across cultural contexts
Name: Kimberly Noels
Organization: Zurich University of Applied Sciences, Switzerland
Email: knoels@ualberta.ca
Co-authors: Maureen Ehrensberger-Dow; Hiroshi Ota; Kristie Saumure

Abstract:
Autonomy has long been an important topic in the field of second language (particularly English) learning and teaching, but very little of this research has been informed by Self-Determination Theory. Conversely little of the research in the SDT tradition has been conducted in countries where English is a commonly taught language. Many of these countries can be described as relatively collectivistic cultures where autonomy might not be as strongly valued as in Western societies. The purpose of this study, then, was to examine language learning motivation in two countries that have been suggested to differ in the extent to which citizens demonstrate individualistic and collectivistic values. Post-secondary students in Japan and Switzerland completed a questionnaire that assessed their reasons for learning English, their feelings of autonomy, competence, and relatedness, their effort and persistence in language learning, as well as interdependent and independent self-construals. The results of regression analyses indicated that, across national groups, effort and persistence were stronger when students learned the language because it was personally meaningful to them and/or because they found it fun to learn. Pressures and rewards imposed by others or the self were poor predictors of effort and persistence. Contrary to expectation, autonomy was the most important predictor of self-regulated and intrinsic motivation in the relatively more interdependently-oriented Japanese group. The results are discussed in terms of their relevance for teaching languages in different cultures as well as their implications for the cross-cultural validity of motivational theories developed in Western contexts.
Contribution 3

The effects of individual differences in collectivist and individualist orientations on the relationship between autonomous motivation and behavioural intentions

Name: Panagiotis Rentzelas
Organization: University of Essex, UK
Email: prentz@essex.ac.uk
Co-authors: Martin Hagger

Abstract:
Most of the research examining the role of collectivism and individualism on intrinsic motivation is cross-cultural in nature (Iyengar & Lepper, 1999; Chirkov et al. 2003). However, according to self-systems theory (Markus & Kitayama, 1991) different aspects of the self, independent and interdependent self-construals, correspond to the individualist and collectivist cultural dimensions. In the present study, these self-construals will be tested as moderators of the effect of autonomous motivation on physical activity intentions and behaviour in a combined model of the Theory of Planned Behaviour (TPB) (Ajzen, 1991; Fishbein & Ajzen, 1975) and Self-Determination Theory (SDT) (Deci & Ryan, 1985; Ryan & Connell, 1989). Participants (n = 189) took place in a structured questionnaire study where they answered self-reported psychological variables measuring autonomous motivation, TPB variables and self-construals on exercise behaviour. Results were consistent with previous research suggesting that autonomous motivation is a predictor for behaviour and intention to exercise (Hagger, Chatzisarantis & Harris, 2006). Interestingly the motivation behaviour effect was moderated in a direction suggesting that individuals holding an interdependent self were more likely to perform exercise behaviour on the basis of autonomous motivation. Furthermore, the moderating role of self-construals was revealed in pattern where participants holding interdependent self-construals were more likely to form intentions and manifest behaviour on the basis of subjective norms than those holding an independent self who were more likely to form intentions based on perceived behavioural control. Implications of the findings to SDT and practice are discussed.
Saturday, MAY 15th: APPLIED DAY (Faculty building)

GENERAL OVERVIEW

8:00-8:30
Registration
Entrance Hall of the Faculty Building

8:30-9:45
Session 4

Session 4A: Academic Motivation
Chair: Martin Hagger
Room 1B

Joachim Stoeber
Passion and motivation for studying: Predicting burnout and engagement

Stephen Tonks
Investigating the complexity of academic autonomy in children

Chee Keng John Wang
A motivational analysis of project work in Singapore using self-determination theory

Session 4B: Motivational processes in
sport: Predicting adaptive and sustained engagement
Chair: Martyn Standage
Auditorium 2

Julie Boiché
Contextual self-determined motivation and role conflict or integration

Nikola Medic
Persistence and dropout behaviours of masters athletes over a four-year period: A self-determination perspective

Paul Appleton
On the role of passion for sports in athlete burnout: A process model

Session 4C: Work and Organization I
Chair: Marc Blais
Auditorium 1

Bard Kuvaas
Perceived investment in employee development: The roles of exchange perceptions and work motivation

Wouter Vandenabeele
Explaining career attitudes: Public service motivation versus autonomous motivation in Flemish state government

Jacques Forest
International validation of the "Revised Motivation at Work Scale": Validation evidence in five different languages
Session 4D: Parenting and school motivation
Chair: Mireille Joussemet
Auditorium 3

Idit Katz
Parents’ role in students’ autonomous motivation for doing homework:
The importance of parents’ motivation and behavior

Barbara Otto
Parental control, academic motivation, and math performance: Testing a mediation model with a bootstrap approach

Jung-In Kim
The roles of perceived parent and classroom variables on achievement motivation of children of different ethnic/cultural backgrounds in an American high school

Session 4E: Health care
Chair: Martin Lynch
Auditorium 4

Youngmee Kim
Longitudinal effects of caregiving motives on depression and finding benefit from cancer caregiving at 5 years post-diagnosis

Holly McGregor Lavigne
Daily fluctuation in autonomy support, autonomous motivation, and perceived competence in a tobacco dependence trial

Cameron Wild
Social support and psychiatric symptoms moderate the impact of identified motivation on participation in addiction treatment

Eivind Meland
The importance of autonomous motivation, autonomy support, and social relation after cardiac disease

9:55-10:45
Plenary Talk 4

Plenary Talk 4A
Auditorium 2
9:55-10:20
Johnmarshall Reeve
Korea University
Teachers are not autonomy supportive: An unfortunate truth
10:20-10:45
David Markland
Bangor University
The functional significance of self-talk: Associations between information and controlling self-talk and affect and anxiety

Plenary Talk 4B
Auditorium 1
9:55-10:20
Joan L. Duda
University of Birmingham
Promoting autonomous physical activity engagement: A trial in the context of exercise referral
10:20-10:45
Jennifer La Guardia
University of Waterloo

Predicting spouses’ hypervigilance and control of patients after a cardiac crisis: The role of emotion regulation
10:45-11:10
Coffee Break
Restaurant
11:10-12:25
Session 5

Session 5A: Self-regulated learning
Chair: Guy Roth
Auditorium 3

Ingolf Schäfer
Self-determination theory and processes of abstraction of low-achieving students in mathematics

Dirk Tempelaar
Effort regulation in the learning of math and stats: The role of motivational profiles and metacognition

Julie Troum
Empowered for practice: The relationship between perceived autonomy support and perceived competence on task persistence of undergraduate applied music students

Session 5B: Applying self-determination theory in the physical activity domain: A European perspective
Chair: John Wang
Room 1B

Filip Boen
Promotion of physical activity among the elderly through need-supportive coaching

Jarmo Liukkonen
Self-determined motivational climate and students’ emotional experiences

Symeon Vlachopoulos
The relationship of multidimensional exercise amotivation with exercise stages of change among Greek adults

Session 5C: Work and organization: Leadership and motivation
Chair: Jacques Forest
Auditorium 1

Klaus Jonas
Looking for mediating mechanism of transformational leadership: The role of self-determination

Helga Peeters
Transformational leaders bring passionate employees
Anja Van den Broeck
The health-impairing impact of problematic working conditions: Does basic need satisfaction play a role?

Niels van Quaquebeke
What happens when leaders inquire instead of advocate? Consequences for employees’ self-determination

Session 5D: Need supportive teaching behaviors during classroom instruction
Chair: Johnmarshall Reeve
Auditorium 2

Leen Haerens
Development and initial validation of the Need Supportive Teachers Behaviors Observation Protocol-Physical Education

Bodil Stokke Olaussen
Development of teacher-student relationships: A case study based on autonomy support

Yngvar Ommundsen
PE teachers’ motivational strategies and students’ need satisfaction, regulation of motivation, and out-of-school physical activity

Session 5E: Psychopathology
Chair: Cameron Wild
Auditorium 4

Laurence Claes
Motivational dynamics among eating-disordered patients with and without non-suicidal self-injury: A self-determination theory approach

David Marcotte
Spiritual self-schema therapy with HIV+ non-injection drug users in midlife: A pilot study of self-determination

Rafael Gargurevich
The effects of dependency- and achievement-oriented psychological control on depression: Results from Peru

12:25-14:00
LUNCH
Poster Session B
Restaurant
Around Auditorium 2

B1: Basic psychological needs (1-10)
B2: Development and parenting (11-20)
B3: Education (21-40)
1st floor

B4: Sport and exercise (41-60)
B5: Organizations and work (61-80)
B6: Environment (81-83)
B7: Health care (84-90)
B8: Psychotherapy (91-94)
B9: Psychopathology (95-97)
2nd floor
14:00-15:30
Invited Symposia 2

Symposium 2A: Analyzing the content of clinical SDT-based interventions: What does it take to motivate healthy behaviors and does motivational interviewing also fit the bill?
Chair: Geoffrey Williams
Auditorium 1

Pedro Teixeira
Promoting self-determination for exercise and weight control

Ken Resnicow
Supporting psychological needs with Motivational Interviewing: Furthering our understanding of how MI may motivate behaviour

Anne Halvari
Motivational predictors of change in oral health

Symposium 2B: Satisfaction versus thwarting of basic psychological needs and the urge, value, or motivation for more satisfaction over the short term and long term
Chair: Edward Deci
Auditorium 2

Arlen Moller
A positive association between person-level relatedness and the incremental value of relating

Kennon M. Sheldon
When and how do unmet needs prompt adaptive need-relevant behavior?

Luc Pelletier
Impulsive restoration of the need for autonomy

Jan-Willem van Prooijen
Procedural justice as autonomy regulation

15:30-15:45
Coffee Break
Restaurant

15:45-16:45
Workshops

Brainstorm
SDT & MI (K. Resnicow, G. Williams, D. Markland)
Room 1A
Brainstorm
Parenting (W. Grolnick, G. Mageau, A. Assor, & M. Joussemet)
Room 1B
Brainstorm
Sports (N. Ntoumanis & R. Vallerand)
Room 1C
Brainstorm
Relationships (J. La Guardia & H. Patrick)
Room 2A
Teaching
SDT-based interventions in education (J. Reeve)
Room 2B
Teaching
Cross-cultural issues (V. Chirkov & M. Lynch)
Room 2C
Teaching
Mindfulness (K. Brown)
Room 2D
Teaching
Work motivation (J. Forest, M. Gagné, & M. Blais)
Room 2E

16:45-18:00
Session 6

Session 6A: Structure and competence
Chair: Hyungshim Jang
Room 1B

Jorge Cottyn
Providing optimal motivational structure by learning by analogies in physical education classes

Timo Jaakkola
The associations between 7th grade Finnish students’ motivational climate, perceived competence, self-determined motivation, and fundamental movement skills

Willy Lens
How you say it makes a difference: The motivating role of communicating corrective feedback in an autonomy-supportive way

Session 6B: Exercise and PE II
Chair: Joan L. Duda
Auditorium 1

Erika Borkoles
Autonomy support, need satisfaction, general causal orientation, and work engagement in volunteer and paid coaches

David Gonzalez-Cutre
Motivation and exercise dependence: A study based on self-determination theory

Alex Garn
A prospective study of middle school students’ motives and physical activity

Session 6C: Educational interventions
Chair: Nikos Chatzisarantis
Auditorium 2

Ofra Feinberg
A school reform program based on the concept of internalization

Waldemar Mittag
The promotion of self-determined motivation in German language education

Damien Tessier
The effect of two interventions to improve teachers’ interpersonal style in PE
Session 6D: Structure, antecedents, and outcomes of academic socialization in three different cultures
Chair: Bart Soenens
Auditorium 4

Ahyoung Kim
Teachers’ conditional regard, autonomy support, and types of student motivation as predictors of students’ academic engagement and achievement

Ercan Kocayörük
A Turkish adaptation of Perceptions of Parents Scales: Confirmatory and exploratory factor analysis

Guy Roth
Personal characteristics of parents and teachers as predictors of autonomy supportive behavior

19:30
SDT dinner and party
International Convention Center
(Citadelpark, B-9000 Ghent)
Contribution 1
Passion and motivation for studying: Predicting burnout and engagement
Name: Joachim Stoeber
Organization: University of Kent, UK
Email: J.Stoeber@kent.ac.uk
Co-authors: Julian H. Childs; Jennifer A. Hayward; Alexandra R. Feast

Abstract:
Previous research on the Dualistic Model of Passion found harmonious passion in school teachers to be associated with lower burnout, and obsessive passion with higher burnout (Carbonneau, Vallerand, Fernet, & Guay, 2008). The present study examined the relationships of passion and burnout in students, additionally regarding engagement and motivation for studying. As expected, harmonious passion was associated with lower burnout (cynicism, inefficacy) and higher engagement (vigor, dedication). Moreover, harmonious passion fully mediated the relationships between intrinsic motivation and inefficacy, vigor, and dedication. Unexpectedly, obsessive passion too was associated with lower burnout (inefficacy) and higher engagement (vigor, absorption), but did not emerge as a mediator. The findings show that harmonious and obsessive passions are important factors in student burnout and engagement (a) showing unique associations with different aspects of burnout and engagement and (b) explaining variance in burnout and engagement beyond the variance explained by motivation for studying.

Contribution 2
Investigating the complexity of academic autonomy in children
Name: Stephen M. Tonks
Organization: Northern Illinois University, USA
Email: stonks@niu.edu
Co-authors: Cedrick Dortch; Litesa E. Wallace

Abstract:
Previous research on the perceived autonomy of schoolchildren has relied on the Self-Regulation Questionnaire-Academic (SRQ-A), a written survey on which students respond to questions about their academic behaviours by rating a set of pre-determined reasons. This study used interview methodology to gain a more nuanced picture of students’ perceived autonomy. In standardized open-ended interviews, we asked 37 children (20 girls, 17 boys; ages 8 to 11) from the Midwestern United States about their reasons for engaging in schoolwork. In the analysis, we coded 260 reasons and categorized them by similarity of meaning. Children expressed a wide variety of reasons for their academic behaviour evidenced by the 18 reason groups that emerged. These groups represented a range of regulation types and goal contents. The most prevalent reason, voiced by 29 children, was “to get good grades” which suggests that these students are strongly motivated by this external regulation. Two reasons tied for second place, and were stated by 13 children each: “to learn” and “it’s fun or interesting”. Close behind, mentioned by 12 and 10 students respectively, were “my parent/teacher tells me to” and “to please my parent/teacher”. Interestingly, the SRQ-A includes only two of these top five reasons, which raises issues of content validity. Students’ reasons are further interpreted and discussed with respect to the self-determination continuum, intrinsic and extrinsic goal contents, and in relation to quantitative data obtained from the same children regarding their academic motivation, cognitive engagement, and autonomy-affecting teacher behaviours.
Contribution 3
A motivational analysis of project work in Singapore using self-determination theory
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Co-authors: Woon Chia Liu; Caroline Koh; Oon Seng Tan; Jessie Ee

Abstract:
The purpose of this study was to examine the impact of project work (PW) and study the motivational processes of PW using a self-determination theory (SDT) framework. A total of 435 students from Normal Academic stream (NA) and Normal Technical stream (NT) were recruited from four secondary schools in Singapore. Students’ perceptions of the values of PW, basic psychological needs, relative autonomy, enjoyment, and grades were measured across a few time points. Results showed that students valued the PW experience. However, their enjoyment, needs, and relative autonomy decreased significantly in the 10 to 12 weeks of PW experience. Multiple regression analyses revealed that post-PW enjoyment negatively predicted PW grades, while psychological needs, relative autonomy and pre-PW enjoyment positively predicted post-PW enjoyment. After 6-month PW, post-PW enjoyment emerged as a stronger predictor than grades in predicting the values of PW. The study applies self-determination theory to the PW context and highlights the importance of facilitating the three psychological needs in the PW context to enhance students’ motivation and achievement in PW.

SESSION 4B
Motivational processes in sport: Predicting adaptive and sustained engagement
Chair: Martyn Standage

Contribution 1
Contextual self-determined motivation and role conflict or integration
Name: Julie Boiché
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Co-authors: Philippe Sarrazin

Abstract:
SDT tenets and several field studies propose that the more self-determined, the less individuals experience inter-roles conflicts (e.g., Ratelle et al., 2005). However, Boiché and Sarrazin (2007) observed a positive bound between athletic motivation and school-to-sport conflict, suggesting that the links between motivation and inter-role relationships may be more complex than believed. The purpose of this paper was to further explore this issue. Three empirical studies involving around 1000 participants assessed contextual motivation for one or several domains and various tools measuring role conflicts and/or integration. Multiple regression analyses were carried out using the SDI versus all types of regulations when predicting conflict variables. On the whole, entering the various types of motivation enabled to double the amount of explained variance. Additionally, (1) self-determined forms of motivation were positive predictors of integration indicators; (2) non self-determined forms of motivation were positive predictors of conflicts but (3) occasionally self-determined forms of motivation were positive predictors of conflicts assessed in a bi-directional fashion. Those studies offer interesting insights with regard to the role of self-determination in shaping an integrated self.
Contribution 2
Persistence and dropout behaviours of masters athletes over a four-year period: A self-determination perspective
Name: Nikola Medic
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Email: n.medic@ecu.edu.au
Co-authors: Bradley W. Young; Janet L. Starkes; Patricia L. Weir

Abstract:
The purpose of this investigation was to examine the degree to which a more self-determined motivational profile protects masters athletes from sport dropout. Participants (M age at baseline = 53.9 years, SD = 9.9; males = 192, females = 118) at annual national masters championships for USA swimming and Canadian athletics completed the Sport Motivation Scale (Pelletier et al., 1995) and four integrated regulation items (Mallett et al., 2007). A self-determination index was derived and analysed with respect to participation at the same national championships four years subsequently. Compared to those who reported a low self-determination index (based on a median split), high self-determination athletes (a) attended more championships in the first subsequent year and across the four following years (all ps < .05), and (b) were less likely to cease attending after the first subsequent year (p < .05). Ancillary analyses explored whether self-determination indices and subsequent engagement patterns were a function of athletes’ relative age in 5-year age competitive groupings used to organize Masters sport (Medic et al., 2007). Results showed that masters athletes who had a low self-determination index showed disrupted participation patterns (p < .05), but only when they were relatively-older and potentially at a competitive disadvantage in a grouping; similar results were not evident when they were relatively-younger and potentially at a competitive advantage within a grouping. Overall, the findings suggest that a highly self-determined motivational profile is associated with a prolonged engagement and lower dropout from sport.

Contribution 3
On the role of passion for sport in athlete burnout: A process model
Name: Paul Appleton
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Co-authors: Robert Vallerand

Abstract:
The purpose of the present research was to test a model on the role of passion for sport in athlete burnout. This model posits that obsessive passion produces conflict between sport engagement and other life activities, because the athlete cannot let go of their activity. Furthermore, obsessive passion leads to rumination when the individual is prevented from competing. Conversely, harmonious passion is expected to prevent conflict and rumination, and positively contribute to satisfaction in sport. Finally, conflict and rumination are expected to contribute to athlete burnout, while satisfaction should prevent its occurrence. This model was tested in two studies. With a sample of academy rugby players (n=147), Study 1 revealed that the effects of harmonious passion on burnout were partially mediated by satisfaction and conflict. In Study 2 with marathon runners (n=151), harmonious passion was negatively correlated with athlete burnout and the negative effects of obsessive passion on athlete burnout were partially mediated by rumination and conflict. The results reinforce the adaptive nature of harmonious passion in sport, and specifically confirm the preventive nature of harmonious passion for athlete burnout. The findings also highlight the debilitating effects of athletes’ obsessive passion, and provide initial evidence for an association with burnout symptoms. Finally, the current study provides empirical support the dualistic model of passion, by confirming the mediating role of satisfaction, conflict, and rumination in the passion-burnout relationship.
SESSION 4C
Work and organization I: Motivation
Chair: Marc Blais

Contribution 1
Perceived investment in employee development: The roles of exchange perceptions and work motivation
Name: Bård Kuvaas
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Co-authors: Anders Dysvik

Abstract:
By integrating different motivational sources with origins in social exchange theory and self-determination theory, the purpose of this study was to contribute to a better understanding of how different motivational sources influence employee behaviors and attitudes. The results from a cross-sectional study of 466 employees from a global IT company’s locations across different European countries showed that perceived investment in employee development was related to social and economic exchange perceptions. Furthermore, intrinsic and extrinsic motivation fully or partially mediated the relationships between social and economic exchange perception and work performance. Finally, the relationship between social exchange perception and turnover intention was partially mediated by intrinsic motivation. These findings suggest that there is more to the exchange relationship than merely a felt obligation to reciprocate.

Contribution 2
Explaining career attitudes: Public service motivation vs. autonomous motivation in Flemish state government
Name: Wouter Vandenabeele
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Co-authors: David Coursey

Abstract:
The study of motivation of public employees has gained momentum in the last decade. In particular, the concept of public service motivation, which refers to the motivation of individuals to contribute to society, has increased (Perry and Hondeghem 2008). This theory states the importance of identity (and possibly the fit between this identity and the environment, Perry and Vandenabeele (2008)). However, it is not the sole motivation found with public servants. Other types of motivation, stemming from different motivational perspectives, also influence behavior of government employees. One particular interesting theory is self-determination theory (Deci and Ryan 2004; Ryand and Deci 2005). This paper would like to further investigate these different types of motivation. In particular, it would like to examine the relationship between different types of motivation, how they relate to one another and to public servants’ career attitudes, such as the willingness to pursue a career and obtain promotion, tendency to leave the organization and the attractiveness of the current employer. Organizational commitment and job satisfaction will be used as mediators in explaining the relationship. The empirical part of the paper is based upon the analysis of a survey of Flemish state employees (N=3506). The main variables from this survey that will be used in the analysis are public service motivation (as measured by Vandenabeele 2008), relative autonomy (derived from Grolnick and Ryan 1989), job satisfaction, organizational commitment (Benkhoff 1997) and some control variables. The relationship among these will be analyzed by means of a structural equation model, in order to assess the impact of the independent on the dependent variables.
Contribution 3

International validation of the “Revised Motivation at Work Scale”: Validation evidence in five different languages (French, English, Italian, Spanish, & Dutch)

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Co-authors: Marylène Gagné; Maarten Vansteenkiste; Anja Van den Broeck; Laurence Crevier-Braud; Éliane Bergeron; Charles Benabou; Juan L. Nuñez; Jose Martin-Albo; Adalgisa Battistelli; Patrizia Picci; Maura Galletta; Mathias Naudin; Ndao Mans

Abstract:
Results of a cross-cultural validation study of the Revised Motivation at Work Scale is presented in five languages. This scale attempts to improve over previous scales in several ways. Firstly, previously published scales of work motivation using SDT overemphasized an approach orientation for extrinsic motivation items and an avoidance orientation for introjected motivation items. To overcome this problem, we distinguished between introjection-approach and introjection-avoidance and also between extrinsic-material (approach and avoidance) and extrinsic-social (approach and avoidance). Factorial analyses confirm that this theoretical differentiation can be statistically detected. Moreover, alpha coefficients are higher for external regulation than in previous scales. Secondly, strict differentiation of the autonomous items into identified regulation and intrinsic motivation was used when developing items. Previous scales sometimes combine identification and intrinsic motivation into the same items. This increases the face validity of the scales. Thirdly, previously published scales were only available in French or English (or were translations of these measures), without empirical evidence showing equivalence across languages, which limits cross-cultural generalization. This revised scale is translated in 12 languages - Chinese, Arabic, Norwegian, Swedish, Danish, Greek, German, Dutch, Spanish, English, Italian and French - with data collected and analyzed for the latter five languages. The present study conducted with 1910 participants shows empirical evidences of validity, reliability and structural invariance in five different languages (French, English, Italian, Spanish, and Dutch). We also show that the MAWS subscales are predictably related to organizational behavior constructs. Implications for research and practice involving SDT in organizations are discussed.
SESSION 4D
Parenting and school motivation
Chair: Mireille Joussemet

Contribution 1
Parents’ role in students’ autonomous motivation for doing homework:
The importance of parents’ motivation and behavior
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Co-authors: Avi Kaplan; Gilla Gueta

Abstract:
Homework is a unique academic task that is administered at school but conducted at home. The current study is one of a series of studies that aims to investigate processes at school and at home that contributes to or hampers students’ motivation for homework. This study investigates the role of the home environment in students’ motivation. Using SDT as a theoretical framework, we tested a model suggesting that parents characteristics (perceived competence, attitudes, and type of motivation) are related to their need-supportive behavior, which in turn, is related to their child’s motivation for doing homework. 135 parent-child dyads of 4th grade Jewish-Israeli children and one of their parents participated. The path analysis indicated that the model fit the data well ($\chi^2= 16.69, df=8, \chi^2/df=2.09, p=.03; CFI=.96; RMSEA=.090, p=.13$). A unique contribution of the current study is the assessment of parents need-supportive behavior with indicators of both parents and children perceptions. Interestingly, it was the parents’ perception, rather than the students’ perception, that was the stronger predictor of the latent variable associated with students’ motivation. This finding raises theoretical questions regarding parents’ and children’s interpretation of parent behavior as need-supportive. The findings highlight the important role of parents in the quality of students motivation to do homework, which corroborate with the emphasis in the SDT. The findings also suggest that special attention is required to those who should be providing the support (parents and teachers) in terms of their characteristics and the level in which their own psychological needs are satisfied.

Contribution 2
Parental control, academic motivation, and math performance:
Testing a mediation model with a bootstrap approach
Name: Barbara Otto
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Co-authors: Christopher P. Niemiec

Abstract:
Research from SDT suggests that the dynamics involved in children’s home environment have an important influence on their academic motivation and grades. For example, Grolnick and Ryan (1989) reported that parental autonomy support (assessed using structured interviews) predicted children’s self-reported autonomous self-regulation for school and teacher-reported grades in math and reading. The present research sought to extend these previous findings by proposing and testing a mediation model of the associations among parental style and children’s academic motivation and grades. In a sample of 4th grade German students, the current study examined the associations among perceived parental control (child-report), students’ autonomous self-regulation and competence (parent-report), and math grades (teacher-report) using an SPSS macro for simple mediation (Preacher & Hayes, 2004). Significant associations were found between parental control and math grades ($b = -.14$), parental control and academic motivation ($b = -.29$), and academic motivation and math grades controlling for parental control ($b = .18$); the indirect relation of parental control to math grades through academic motivation was significant ($95\% CI: -.10, -.01$). Bootstrap analysis with 5000 resamples confirmed
the significance of this indirect relation (99% CI: -.14, -.001). Thus, using data from three sources, results suggested that parental control undermines math performance (in part) because of such a parenting style detracts from children’s autonomous self-regulation and competence for academics.

**Contribution 3**

The roles of perceived parent and classroom variables on achievement motivation of children of different ethnic/cultural backgrounds in an American high school

Name: Jung-In Kim
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**Abstract:**
The remarkable increase in immigration following the 1965 Immigration Act has resulted in approximately one in five children in the US having at least one foreign-born parent (Hernandez & Charney, 1998). The purpose of current study was to understand the role of students’ perceptions of parents and classroom variables on their achievement motivation taking into account their ethnic/cultural backgrounds. In this study, 331 students of different ethnic/cultural backgrounds (European-American (n=71), Asian-American (n=83), Latin-American (n=95), and other (n=82)) enrolled in an American high school completed measures on their achievement motivations for learning math and their perceptions of parents and classroom. The results of the path analyses revealed that the students’ goal orientations were predicted by their perceptions of parents’ goals for them, of parents’ motivating styles, and of classroom goal structures, partially mediated by their self-regulations. In particular, students’ autonomous regulation (identified regulation, but not intrinsic motivation) strongly predicted mastery goals, and students’ controlled regulation (introjected regulation, but not extrinsic motivation) strongly predicted performance goals. When the pattern of relationships among the variables was compared across the three groups of students, identified regulation still predicted mastery goals and introjected regulation predicted performance goals; however, the three groups of students slightly differed in how their perceptions of parents’ motivating styles predicted their self-regulation. In general, the chi-square difference test supported the path models to be equivalent across the three groups. An integration of self-determination theory and goal theory is offered, broadening the application of these theories to students of different ethnic/cultural backgrounds.
Contribution 1
Longitudinal effects of caregiving motives on depression and finding benefit from cancer caregiving at 5 years post-diagnosis
Name: Youngmee Kim
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Co-authors: Charles S. Carver

Abstract:
Although the 5-year survival rates of cancer have improved to 66%, a substantial proportion of cancer survivors experience late or extended side effects of treatment, have recurrences or second cancers, or are undergoing end-of-life care at 5-year landmark from the initial diagnosis. Evidence on how caregivers adjust to cancer in the family has been accumulated mostly with regard to the time of diagnosis and treatment, and remains unknown with regard to a longer-term survivorship phase such as 5 years post-diagnosis. This study is part of a longitudinal national study on cancer caregivers. A total of 64 family members reported that they were actively providing care to the survivor at 5-year post-diagnosis (T2) and provided complete data for the study variables at both initial assessment (2-year post-diagnosis: T1) and T2. General linear modeling revealed that, after controlling for the T1 levels of depression and various aspects of benefit finding, concurrent caregiving motives related positively to becoming empathic for others (B=.09, p<.03); external caregiving motives related negatively to becoming empathic for others (B=-.12, p<.05) and to gaining a positive self-view (B=-.12, p<.05). Findings suggest that family members engaging in caregiving for external reasons years after the initial diagnosis are distant from others and more poorly adjusted. Cancer caregivers of long-term cancer survivors may benefit from having an environment that supports autonomous motives for caregiving.

Contribution 2
Daily fluctuations in autonomy support, autonomous motivation, and perceived competence in a tobacco dependence trial
Name: Holly Mcgregor Lavigne
Organization: University of Rochester, USA
Email: holly_lavigne@urmc.rochester.edu
Co-authors: Geoffrey Williams; Heather Patrick; Richard Ryan; Edward Deci

Abstract:
A recent Self-Determination Theory (SDT) tobacco dependence treatment trial demonstrated that, relative to a control group, patients randomized to an intensive intervention were more likely to use medications and to achieve abstinence. Changes in autonomous self-regulation (ASR) and perceived competence mediated the effect of the intervention on abstinence in both groups, the intensive intervention was perceived as more autonomy supportive, which resulted in increased ASR, perceived competence and medication taking (Williams, McGregor, et al., 2006). In an ongoing trial intended to increase maintenance of abstinence, ASR and perceived competence were measured at baseline and one month later, and while reasonably sensitive, they do not capture the dynamics of regulatory function early in a cessation attempt. Thus, we conducted an Interval-Contingent Sampling Procedure (ICSP) to carefully map the changes in autonomy support, ASR, and perceived competence on a daily basis over the first five weeks of participation. We anticipate (1) that greater day-to-day fluctuations in ASR for taking medications will be associated with greater daily fluctuations in medication taking behavior, (2) that changes in ASR will precede changes in perceived competence, and (3) that changes in autonomy and competence will precede abstinence of tobacco use. The implications of daily fluctuations in ASR and perceived competence on tobacco abstinence, SDT and SDT based interventions will be discussed.
Contribution 3
Social support and psychiatric symptoms moderate the impact of identified motivation on participation in addiction treatment
Name: Cameron Wild
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Co-authors: Jody Wolfe; Karen Urbanoski; Brian Rush

Abstract:
Addiction treatment is typically associated with dropout rates of 50% or greater. This reality has encouraged investigators to identify predictors of early engagement in the treatment process. This study investigated whether social support and psychiatric symptoms moderated the relationship between self-determined treatment motivation and early engagement in treatment. Clients entering a Canadian residential substance abuse program (N = 328; 51% males; 52% Aboriginal heritage; M age = 32.5 years) rated the extent to which treatment was being sought because of coercive social pressures (external motivation; \( \alpha = .74 \)), guilt about continued substance abuse (introjected motivation; \( \alpha = .84 \)), or a personal choice and commitment to the goals of the program (identified motivation; \( \alpha = .76 \)), along with scales assessing social support and psychiatric symptoms. One month into treatment, participants were assessed on confidence in and commitment to treatment, rapport with counselors, and extent of treatment participation. Hierarchical multiple regression analyses showed that, after adjusting for effects of 8 sociodemographic and treatment-related covariates, there were positive effects of identified treatment motivation on rapport with counselors and on overall level of engagement (ps < .05). As predicted, social support from family and friends, as well as psychiatric symptom severity moderated the effects of identified treatment motivation on clients’ level of participation in treatment (\( \Delta R^2 = .04 \) p < .02; \( \Delta s = -.18 \) to -.20, ps < .05). Interventions designed to enhance identified motivation for seeking addiction treatment need to take into account social network influences and concurrent psychiatric symptoms.

Contribution 4
The importance of autonomous motivation, autonomy support and social relation after cardiac disease
Name: Eivind Meland
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Email: eivind.meland@isf.uib.no
Co-authors: Hohn G. Maeland

Abstract:
The purpose of this investigation was to examine the degree to which a more self-determined motivational profile protects masters athletes from sport dropout. Participants (M age at baseline = 53.9 years, SD = 9.9; males = 192, females = 118) at annual national masters championships for USA swimming and Canadian athletics completed the Sport Motivation Scale (Pelletier et al., 1995) and four integrated regulation items (Mallett et al., 2007). A self-determination index was derived and analysed with respect to participation at the same national championships four years subsequently. Compared to those who reported a low self-determination index (based on a median split), high self-determination athletes (a) attended more championships in the first subsequent year and across the four following years (all ps < .05), and (b) were less likely to cease attending after the first subsequent year (p < .05). Ancillary analyses explored whether self-determination indices and subsequent engagement patterns were a function of athletes’ relative age in 5-year age competitive groupings used to organize Masters sport (Medic et al., 2007). Results showed that masters athletes who had a low self-determination index showed disrupted participation patterns (p < .05), but only when they were relatively-older and potentially at a competitive disadvantage in a grouping; similar results were not evident when they were relatively-younger and potentially at a competitive advantage within a grouping. Overall, the findings suggest that a highly self-determined motivational profile is associated with a prolonged engagement and lower dropout from sport.
PLENARY TALKS

PLENARY TALK 4A

Contribution 1
Teachers are not autonomy-supportive: An unfortunate truth
Name: Johnmarshall Reeve
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Abstract:
On average and from one nation to the next, teachers are generally not autonomy supportive toward their students. This is an unfortunate reality of contemporary schooling, because research rather unambiguously shows that students benefit from teacher autonomy support while they suffer from teacher control. So why are teachers not autonomy supportive? Many valid reasons can be (and have been) offered that revolve around the ever-present pressures and contingencies teachers face, not only from the profession but from students, parents, and even from within themselves. But the widespread instructional tendency to control students during instruction runs deeper. The present paper characterizes my curiosity, confusion, and empirical search to understand this unfortunate truth. In the context of this search, the present paper seeks to accomplish two objectives. First, adopting a unit of analysis of the teacher, recent years have produced several important insights about how teachers can learn to become more autonomy-supportive toward students, and these findings will be presented. Second, adopting a unit of analysis of the culture, findings will be presented to illuminate a clearer understanding of why so many teachers who, upon learning about autonomy support and its benefits, show a “but you don’t understand” helpless facial expression and then say, “It’s (autonomy support) just not our way.”

Contribution 2
The functional significance of self-talk: Associations between informational and controlling self-talk and anxiety
Name: David Markland
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Co-authors: Emily J. Oliver; James Hardy

Abstract:
We have recently begun to examine the functional significance of self-talk. Our premise is that self-talk can be experienced as informational or controlling, with differential consequences for behaviour and well-being. The aim of the present study was to develop a measure of informational and controlling self-talk and to seek initial evidence that the two forms of self-talk are differentially associated with affect and anxiety. A pool of informational and controlling self-talk items was generated through peer discussion and examination of the literature on autonomy-supportive and controlling communications. Respondents are asked to identify their three most salient self-talk statements during an event and complete the items with regard to each statement. After a lecture in statistics, 146 male and female undergraduate students completed the self-talk measure and self-report measures of positive and negative affect, state anxiety, and their experience and understanding of the lecture. Following item reduction, principal components analyses of the self-talk items indicated that two uncorrelated factors, reflecting the intended informational and controlling dimensions, adequately accounted for the variance in the data. Informational self-talk was positively associated with positive affect regardless of experience of the lecture or degree of understanding. A negative experience of the lecture and poor understanding was associated with greater negative affect and state anxiety when students reported high, but not low, levels of controlling self-talk. These findings suggest that informational and controlling self-talk can be meaningfully differentiated. Furthermore, these two forms of self-talk impact differently on affective experience in a potentially stressful situation.
Contribution 1
Promoting autonomous physical activity engagement: A trial in the context of exercise referral
Name: Joan L. Duda
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Abstract:
This presentation will highlight the approach adopted in and findings of physical activity promotion work to date grounded in SDT. Major focus will be on a recent trial conducted within the Exercise on Referral scheme in Birmingham, England. The aim of this exploratory trial was to facilitate autonomous motivation and the adoption of physical activity for sedentary patients referred from Primary Care with the underlying aim of improving their health. More specifically, we compared the effect (at 3 and 6 months) of an exercise consultation delivered by SDT-trained health and fitness advisors with an exercise consultation provided by currently trained health and fitness advisors on participants' need satisfaction, exercise motivation regulations, physical activity levels, and indices of mental health and quality of life. The process model undergirding the intervention was supported suggesting that a SDT approach to PA promotion is promising. Some of the logistical challenges of trying to promote autonomy support in such community based health promotion programs will be discussed.

Contribution 2
Predicting spouses’ hypervigilance and control of patients after a cardiac crisis: The role of emotion regulation
Name: Jennifer La Guardia
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Co-authors: Sharon S. So

Abstract:
Cardiac crises are distressing events that challenge patients’ and spouses’ abilities to manage their emotions effectively. Using structural equation modeling to test predicted pathways, this research investigated the extent to which patients’ emotion regulation (emotional inhibition, disclosure) related to spouses’ emotion regulation about the cardiac event. Additionally, it investigated the extent to which spouses’ emotion regulation predicted their hypervigilance and control of the patient, controlling for patient symptom status (depression, anxiety, post-traumatic stress). Participants were 72 couples in which one partner experienced a MI, CABG, or both within the past year. Consistent with our predictions, the more patients inhibited their emotions about the cardiac event, the more their spouses also inhibited their emotions about the cardiac event. Moreover, the more spouses attempted to suppress their emotions, the more their distress was manifest in their behaviours with the patient (greater hypervigilance and overcontrol). The more patients disclosed their feelings about their cardiac event to their spouse, the more that their spouse talked to patients about their own feelings regarding the cardiac event. Spouses’ disclosure seemed to be indicative of their distress, as greater disclosure was associated with being more vigilant of threats to patients and overcontrolling of their behaviours. These results suggest that patients and spouses show significant mutuality in how they regulate their emotions about the cardiac event, and further suggests that the more spouses’ regulation is compromised the more they engage in behaviors that have a potentially negative impact on the patients’ climate of recovery. Implications for couples intervention based on Emotionally Focused Therapy and SDT are discussed.
CONTRIBUTION 1
Self-determination theory and processes of abstraction of low-achieving students in mathematics
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Co-authors: Angelika Bikner-Ahsbahs

Abstract:
Self-determination theory has already been successfully applied to the motivational problems of low-achieving students and students with learning disabilities. In our project WOSiM we investigate how processes of abstraction of low-achieving students can be fostered and how their behavior to avoid mathematics can be overcome. According to SDT, the experience of incompetence in mathematics consolidates this avoidance behavior and the experience of competence can reduce it. Therefore we hypothesize that satisfying the basic psychological needs will reduce avoidance behavior and at the same time it will support processes of abstraction of low-achieving students in mathematics. In order to prove this, we arrange empirically situations of support in solving mathematical tasks that also nurture basic psychological needs, observe and analyze these situations through video recordings, reconstruct types of avoidance strategies during processes of abstraction and investigate how satisfying the basic psychological needs influences abstracting. In our talk, we present our theoretical framework connecting SDT and the theory of abstraction in context (Dreyfus, Hershowitz & Schwarz 2001) with the concept of object relations of Oerter (1982). Our aim is to get combined insights into the intertwined process of motivation, abstraction and the genesis of a relationship to mathematical objects of low-achieving students. Finally, some data will illustrate our framework and show first results from our pilot study.

CONTRIBUTION 2
Effort-regulation in the learning of math and stats: The role of motivational profiles and metacognition
Name: Dirk Tempelaar
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Co-authors: Bart Rienties; Bas Giesbers

Abstract:
In this empirical study, we investigate the relationships between self-perceived effort in learning, measured effort in learning, and learning outcomes at the one side, and a range of self-report measures related to motivational profiles, implicit theories about intelligence, and metacognitive abilities, at the other side, of university students learning mathematics and statistics. The prime focuses of the study are the investigation of both the dependency of motivational profiles and metacognitive self-perceptions on implicit theories, as well as the explanatory power of academic motivations and metacognition for subject specific achievement motivations, which in their turn explain effort and performance. Implicit theories are meaning systems about personal attributes as e.g. intelligence (Dweck, 2000). Students’ metacognitive abilities are operationalised by the self-report instrument Awareness of Independent Learning Inventory (Elshout-Mohr et al., 2005; Tempelaar, 2006), that presumes metacognition to be a three dimensional construct, comprising knowledge, skills, and attitudes. Motivational profiles are composed of both academic motivations,
making use of individual differences in orientation on intrinsic and extrinsic motivation, and of expectancy-value model based measures of achievement motivation and self-perceived effort (Tempelaar et al, 2007). Both achievement motivations and self-perceived effort are measured ex ante and ex post, in order to be able to observe developments during the learning episode. The relationships based on individual differences are investigated using structural equation modelling. Subjects in this study are 3000 first year students in an economics or business program, participating in an introductory course mathematics and statistics.

**Contribution 3**

**Empowered for practice: The relationship between perceived autonomy support and perceived competence on task persistence of undergraduate applied music students**

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Email: jtroum@earthlink.net

**Abstract:**
The purpose of this study was to examine undergraduate applied music students’ perceptions of autonomy support, competence, and persistence. Studies under the rubric of the self-determination theory (SDT) have documented that academic settings higher in autonomy support were associated with a higher level of competence and persistence. One assumption of SDT is that competence is increased when the social environment supports self-organization. Recent studies have revealed that many college students are not provided with practice routines or practice strategies to self-direct, regulate, and monitor the practice session, ignoring their inherent need to demonstrate initiative in their own training outside of the applied studio setting. This paper described a motivational-cognitive framework to promote sustained musical motivation in undergraduate applied music students and measured the extent to which perceived autonomy support and perceived competence are associated persistence in practice. Three questionnaires, in the form of an online survey, were completed by undergraduate applied music students (N = 366) measuring autonomy support, competence, and persistence in practice in the applied music studio setting at six Florida universities in the U.S. A new instrument, the Task Persistence Measure of Musical Practice (TPMMP), showed a one factor solution following a factor analysis to justify its use. Regression analyses supported the hypothesis that perceived competence mediates the relation between perceived autonomy and task persistence. It is hoped that this study may promote further understanding of the optimal conditions in higher education for the persistence of practice for applied music study.
SESSION 5B
Applying Self-Determination Theory in the physical activity Domain:
A European perspective
Chair: John Wang

Contribution 1
Promotion of physical activity among the elderly through need-supportive coaching
Name: Filip Boen
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Co-authors: Ann-Sophie Van Hoecke; An Bogaerts; Sandy Groeninck; Jan Hendrickx; Christophe Delecluse

Abstract:
This study tested the relative impact of an individualized physical activity coaching, based on Self-Determination Theory, compared with less intensive coaching procedures. Five-hundred fifty-seven sedentary elderly (i.e. older than 60 years) from four different regions in Flanders were randomly allocated to one out of three coaching conditions: 1) a single sport promotion session, during which the participant was referred to the existing local opportunities (e.g., sport organizations); 2) a single walking instruction session, during which the participant was taught a prestructured walking program (with the possibility of joining weekly group sessions in a socio-cultural organization); 3) need-supportive coaching towards an individualized physical activity program, with regular follow-up contacts (by phone or face-to-face). The interventions lasted ten weeks and participants were measured at the beginning and after completion on various physical and psychological parameters. As intended, participants in the need-supportive coaching group experienced more need support by their coach than participants in both the promotion and walking groups. In general, participants in all three groups significantly increased their levels of physical activity, fitness and psychological well-being. However, only few significant differences emerged between the three groups, even though participants in the need-supportive coaching group showed nonsignificant tendencies to perform better than the promotion and walking groups. A follow-up study one year after pretest is planned to test the prediction that the need-supportive coaching will lead to more physical activity adherence in the long term.

Contribution 2
Self-determined motivational climate and students’ emotional experiences
Name: Jarmo Liukkonen
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Co-authors: Timo Jaakkola; Sami Yli-Piipari; Vassilis Barkoukis

Abstract:
School physical education plays an important role in the socialization process into physically active lifestyle. When children have positive experiences from their involvement in activity during childhood, they can be expected to become involved in physical activity also later as adults. Therefore it is important to find out cognitive, affective, and motivational mechanisms that determine whether students will regard school physical education as enjoyable or, on the contrary, as anxiety provoking. The purpose of the data was to test the relationships between school pupils’ perceived motivational climate and enjoyment, anxiety, and effort during PE lessons. The participants were Finnish sixth grade girls (n = 163) and boys (n = 175). The questionnaires consisted of Motivational Climate in PE Questionnaire, Physical Education State Anxiety Scale, and Enjoyment in Sport scale. Self assessed exerted physical effort was analyzed using a two-item scale. Factorial validities were examined via confirmatory factor analyses. The CFA analyses showed satisfactory factorial validity for the motivational climate scale and the anxiety scale. The Cronbach
alpha coefficients were above 0.70 for all scales. The hypothesized relationships among the motivational climate constructs and the affective outcomes and effort were tested by path analysis using a simultaneous process and a maximum likelihood estimation method with the EQS 6.1. The scales had satisfactory scores for reliability and validity. Autonomy support, relatedness, and learning-oriented climate were positively associated to enjoyment and effort, thus supporting theoretically the self-determination theory.

**Contribution 3**
The relationship of multidimensional exercise amotivation with exercise stages of change among Greek adults  
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Co-authors: Vithleem Aggelidou; Elisavet T. Leptokaridou

**Abstract:**
The aim of the present study was to examine the relationship of multidimensional exercise amotivation beliefs with the exercise stages of change (pre-contemplation, contemplation, preparation, action, and maintenance). A sample of 632 Greek adults indicated their exercise stage of change and completed the Amotivation Toward Exercise Scale -2 (ATES-2: Vlachopoulos, Letsiou, Palaiologou, Leptokaridou, & Gigoudi, in press) to indicate their levels of capacity, effort, value/outcome, and task characteristics exercise amotivation beliefs. In regard to capacity beliefs and effort beliefs, significant differences were found between all groups except between groups 3 (preparation) and 4 (action). For value/outcome beliefs, group 1 (pre-contemplators) differed from all the remaining groups and groups 2 (contemplators) and 4 (action) differed from group 5 (maintenance). In regard to task characteristics beliefs, group 1 (pre-contemplators) differed from all the remaining groups except group 2 (contemplators) while group 3 (preparation) differed from group 5 (maintenance). Overall, achieving a transition either toward the intention to initiate exercise or actual exercise initiation or exercise maintenance may require a decrease of all four types of exercise amotivation beliefs.

**SESSION 5C**  
Work and organization: Leadership and motivation  
Chair: Jacques Forest

**Contribution 1**
Looking for mediating mechanism of transformational leadership: The role of self-determination  
Name: Klaus Jonas  
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Co-authors: Snjezana Kovjanic; Tilman Eckloff; Niels van Quaquebeke

**Abstract:**
Over the last 20 years, a vast amount of research on leadership has dedicated its attention to the concept of transformational leadership. A great number of studies have demonstrated that transformational leadership is related to a variety of important organizational outcomes (Bass, 1999). However, the literature offers little insight into the underlying processes so there is still a lack of understanding how transformational leadership works. We believe that a fruitful approach to address this question is by examining the role of employees’ self-determination (Deci & Ryan, 2000) which still has not penetrated the leadership literature. Our aim is both to spread light on the mediating mechanism of transformational leadership and to highlight the relevance of the self-determination theory in work context. In two studies (N = 407, N = 270) we tested our hypothesis that followers’ self-determination mediates the relationship between transformational leadership and followers’ self-efficacy,
job satisfaction and commitment. Thereby we focused on the leader-follower-dyad. The results obtained by the structural equation modeling support our assumption. The support of competence mediates the relationship between transformation leadership and followers’ self-efficacy, the support of autonomy mediates the relationship between transformation leadership and followers’ job satisfaction and the support for relatedness mediates the relationship between transformation leadership and followers’ commitment with the leader. As assumed by the concept of transformational leadership, our results indicate that leaders who are perceived as transformational attend to each follower’s needs, which in turn leads to performance „beyond expectations“.

Contribution 2
Transformational leaders bring passionate employees
Name: Helga Peeters
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Co-authors: Hermina Van Coillie; Valery Vermeulen

Abstract:
To date, only few published studies addressed the relationship between the leadership theory of Bass (Transformational and Transactional Leadership; 1985) and Self-Determination Theory (SDT; Deci & Ryan, 1989). This study wanted to fill this gap in the literature, by examining how transformational leadership (TFL) and transactional leadership (TAL) influence employees’ autonomous motivation (AM) and controlled motivation (CM) through the process of basic need fulfilment. To this end, we conducted a field study using an online survey. The sample was composed of 1500 Belgian employees, representative for the salaried Belgian working population. TFL and TAL were measured using an adaptation of the MLQ (Multifactor Leadership Questionnaire; Bass & Avolio, 1995). AM and CM were measured using eight items that were based on the Self-Regulation Scale (Ryan & Connell, 1989) and adapted to refer to workers’ regulations for putting effort in their job, rather than to a general regulatory style. Using Bass’ theory and SDT as frameworks, we expected that TFL behaviours would lead to higher autonomous motivation and lower controlled motivation. In contrast, TAL behaviours were expected to decrease employees’ autonomous motivation and increase employees’ controlled motivation. Moreover, it was hypothesized that the influence of TFL and TAL on AM and CM would be fully or partially mediated by basis need fulfilment, more specifically by the fulfilment of the need for autonomy, belongingness and competence. Interesting conclusions and practical implications will be discussed.

Contribution 3
Workers’ motivation profiles: The quality of motivation matters
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Co-authors: Anja Van den Broeck; Willy Lens; Maarten Vansteenkiste

Abstract:
Workers may vary considerably in their enthusiasm and motivation for their work. Various empirical studies in the realm of SDT supported the assumption that being motivated in an autonomous rather than a controlled way, associates positively with well-being, favorable work-attitudes, qualitative performance and continuous persistence. To further understand the quality of work motivation, the present study aims to complement this line of research by identifying subgroups of individuals and their links with various variables. Three questions were addressed in this study. First, we examined how autonomous and controlled work motivation naturally combine. In line with SDT, we expected to find four groups of employees: an autonomous, a strongly, a controlled and a weakly motivated group. Second, we characterized the workers within each group in terms of socio-demographic variables. Finally, to further add to the external validity of the quality
of workers’ motivation, we studied the different motivational profiles with respect to interesting HR-variables. The questions were examined in a representative sample of 1822 Belgian employees. Results of a cluster analysis indicated that the four hypothesized groups emerged. Interesting links with both socio-demographic and HR-variables were found, providing not only external validity for the four cluster-solution, but also interesting and even counter-intuitive findings that give us more insight in the motivation process.

**Contribution 4**

**What happens when leaders inquire instead of advocate?**

**Consequences for employees’ self-determination**

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Co-authors: Will Felps

**Abstract:**

Asking questions has been repeatedly noted by practitioners to be one of the most powerful tools a leader has at hand. Despite such prominence, leadership scholarship has rarely investigated question asking as a leadership technique, and the rare exceptions lack a theoretical framework within which to interpret results. The objective of the present paper is to provide such a theoretical framework with first empirical evidence to support it, hoping that it will instigate future management research and inform leadership practice. Specifically, drawing upon motivation theory, we suggest that questions can meet three potentially overlapping needs within a respondent – to feel related, to feel competent, and to feel autonomous (i.e. the three basic needs outlined in self-determination theory). We formulate a number of propositions describing the specific antecedents of question asking by leaders as well as the consequences of question asking for both leaders and followers. Additionally, we propose that contextual factors, such as power difference and perceived listening, moderate whether different types of questions will have functional or dysfunctional consequences. To corroborate our conceptualization, we will present first experimental data as well as data from the field. Altogether, following the notion of “engaged scholarship”, our approach attempts to respect what leaders in the field are talking about. The present paper focuses on one of such topics, i.e. question asking, and subjects it to rigorous theorizing to make it accessible for empirical research and, ultimately, to foster our understanding of its power – which we believe to be rooted in self-determination.
SESSION 5D
Need supportive teaching behaviors during classroom instruction
Chair: Johnmarshall Reeve

Contribution 1
Development and initial validation of the Need Supportive Teacher Behaviors Observation Protocol-Physical Education (NSTBOP-PE)
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Abstract:
To understand how to structure physical education (PE) classes to foster autonomous motivation it is important to identify which teaching behaviors contribute to the satisfaction of students’ basic needs for autonomy, competence and relatedness. Most previous conducted research on need supportive teaching in PE classes made use of questionnaires. To fill this gap the present study aimed to develop and validate an observation protocol for observing PE teachers’ need-supportive behaviors during PE classes. An initial broad list of need-supportive teaching behaviors was developed based on a review of the literature supplemented with expert observations of video tapes of PE classes. A preliminary study allowed for testing the inter-rater and intra-rater reliability based on videotapes of 21 physical education classes. In the primary study videotapes of 120 lessons taught by different PE teachers will be coded by means of the protocol. Factor analyses on these observed ratings will be used to examine the hypothesized three-factor structure corresponding to the three basic needs underlying teachers’ need-supportive teaching behaviors (factorial validity). The protocol will be further validated by investigating whether (a) identified clusters of need-supportive behaviors and (b) specific need-supportive behaviors are effectively perceived as need supportive by the students. The identification of most critical need supportive and need thwarting teaching will form the guide for an intervention study aimed at training PE teachers to create a need supportive class environment.

Contribution 2
Development of teacher-student relationships:
A case study based on autonomy support
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Co-authors: Kari Fjell

Abstract:
The aim of the present study was to analyse one teacher’s autonomy support during three different classroom activities: greeting routines in the morning, whole group instruction and individual guidance. To shake hands with students is introduced as a good strategy to develop a positive teacher-student relationship in Norway (Fjell 2008). This advice is also found in student-teachers’ literature (Nordahl 2008). To us as observers the greeting routines seemed quite chaotic and time-consuming in different classes, but the same teachers seemed to be good relationship builders in other situations. With SDT as a framework, where autonomy support is seen as a relationship building activity (Reeve 2009), we decided to compare one teacher’s autonomy support during different activities. Our case was videotaped, wearing a wireless microphone, during 6 teaching sequences over 4 days (300 minutes). Based on rich dialogs, we selected 4 x 5 minutes from each activity (total 60 minutes) for detailed analyses. Videograph was used for coding on a timeline, with categories borrowed from Reeve et al. (2008). These codes are transformed into SPSS for further analyses, like interrater reliabilities and frequency measures. We also interviewed the teacher to hear the reasons for her choices. The highest amount of autonomy support
was found during whole class instruction (45.7% of coded time), followed by individual
guidance (41.3%). During greeting routines autonomy support covered only 14%. We
conclude that teachers need constructs in order to be critical and judge if their intentions
are reached with the chosen activity.

Contribution 3
PE teachers’ motivational strategies and students’ need satisfaction, regulation
of motivation, and out-of-school physical activity
Name: Yngvar Ommundsen
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Co-authors: Erik Kaarstein

Abstract:
The mediating role of students’ need satisfaction in the relationship between teacher
autonomy support and students’ regulation of motivation in PE is well researched. In a
recent study Taylor and Ntoumanis (2007) found support that not only teachers’ autonomy
support, but also their provision of structure and a sense of student involvement related
positively to students’ self-determined motivation, and that these relations were mediated
by their need for autonomy and competence. The current study built upon these recent
findings investigating also the potential mediating role of students’ sense of relatedness
in the above relationships. Moreover, we also examined the role of teacher strategies,
students’ need satisfaction, regulation of motivation and affect in PE for their out-of-school
physical activity. Students self-reports on these variables were collected in a sample
comprising 10th graders (15-16 years old) in Norwegian secondary school (N = 294; boys
n = 160, girls n = 134). Regression analyses testing for mediation using the formula
forwarded by Baron and Kenny (1996) indicated that satisfaction of the need for autonomy
fully mediated relationships between teacher provision of structure, autonomy support
and involvement, respectively and self-determined forms of motivation. Further, these
same teacher motivational strategies also influenced self-determined forms of motivation
partly mediated by competence and relatedness need satisfaction, respectively. Logistic
regression analysis further revealed that negative affect in PE related negatively to out-of-
school physical activity, whereas students reporting satisfaction of the need for competence
in PE were more disposed to report taking part in out-of-school physical activity.
CONTRIBUTION 1

Motivational dynamics among eating-disordered patients with and without non-suicidal self-injury: A self-determination theory approach

Name: Laurence Claes
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Co-authors: Maarten Vansteenkiste; Bart Soenens; Walter Vandereycken

Abstract:
Eating disorder patients who display Non-Suicidal Self-Injury (NSSI) are difficult to treat in psychotherapy because they display a strong resistance to change. The purpose of the present contribution was to contrast the motivational profile to undertake psychotherapeutic change of patients with and without NSSI, using Self-Determination Theory as a guiding framework. In a sample of 106 patients, it was found that after controlling for eating pathology patients with, relative to those without, NSSI display a relatively less autonomous motivation to change, primarily because they feel more externally pressured to undertake change. Further, patients with NSSI, especially those who lacked a sense of control over their NSSI, reported less satisfaction of the basic need for autonomy and lower overall well-being. Interestingly, mean level differences between patient groups in well-being could be accounted for patients’ motives for entering into therapy. It is discussed how the development of NSSI might be rooted in thwarted need-satisfaction and controlled functioning such that self-injurious behaviors serves as a need substitute to compensate for the experienced need frustration.

CONTRIBUTION 2

Spiritual Self Scheme Therapy with HIV+ non-injection drug users in mid-life: A pilot study of self-determination

Name: David Marcotte
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Co-authors: Jeffrey Parsons

Abstract:
HIV infection rates have increased substantially in older adults (over 50) during the last 20 years, comprising 18.5% of new infections in 2005, according to the CDC. Among risk factors, substance use remains a primary vector for seroconversion. In addition, inconsistent safe sex practices and decreased adherence substantiate the urgent need for interventions that target both prevention and care. This paper presentation will report findings from a pilot study that used Spiritual Self Schema Therapy (3S) to increase drug abstinence, motivation for adherence and self-determination in a diverse sample of eight, HIV-positive older adults. 3S incorporates principles of mindfulness practice and other elements of Buddhist and positive cognitive psychology in a non-theistic protocol that employs the individual’s personal spirituality to increase autonomous motivation and rehabilitate the internalized sense of self. Findings show significant increased autonomy through a shift in dominant self-representations from those of an “addict” to a “spiritual” self, increased motivation to prevent the spread of HIV and other diseases, increased adherence, and an autonomy-supportive treatment environment. Increased competence was achieved through learning skills for decreasing cravings and substance use (average bags of cocaine at T1: M=11.36 (SD =19.90); T2: M=1.50 (SD =2.72), avoiding HIV risk-behavior, and establishing a stable meditation practice (average daily meditation = 15 minutes; range = 5 to 25 minutes). Increased relatedness was evident in new social connections and discussion of 3S effects with other substance users, connection to spiritual communities for support after treatment, and anecdotal reports of improved relations with spouses and partners.
Abstract:
Recent research on the nature of parenting showed that the use of parental psychological control (mother and father) over their children is focused around two qualitatively different issues, that is, issues of relatedness and interpersonal closeness and issues of achievement and perfection (Soenens, Vansteenkiste, & Luyten, 2010). These issues go in line with two developmental lines that have been distinguished as interpersonal relatedness and self-definition, also known as dependency and self-criticism (Blatt, 2004). Soenens, Vansteenkiste, & Luyten, (2010) showed that dependency and achievement psychological control were differentially related to participant’s dependency and self-criticism personality dimensions which in turn were related to depressive symptoms. The present research aimed at studying the universality of these findings in Peru. Thus, the direct effects of psychological control (dependency and achievement oriented psychological control) as well as the intervening role of dependency and self-criticism personality dimensions, as mediators variables between these types of control and depressive symptoms were studied. A sample of 209 university students in their late adolescence were evaluated using the Dependency-Oriented and Achievement-Oriented Psychological Control Scale (DAPCS, Soenens, Vansteenkiste, & Luyten, 2010), the Depressive Experiences Scale Scale (DEQ, Blatt, D’Afflitti, & Quinlan, 1976) and the Center for Epidemiologic Studies-Depression scale (CES-D; Radloff, 1977). Results were very consistent with the previous study (Soenens, Vansteenkiste, & Luyten, 2010). There were no direct effects of the two domains of psychological control over depression. Instead these effects were mediated by dependency and self-criticism personality dimensions which in turn were related to depressive symptoms. Results showed that participant’s personality has a central role in the perception of parent’s psychological control and explain the specific vulnerability to depression of the different types of psychological control.
POSTERS

POSTER SESSION B

The number indicated on each poster is the number of the poster board that will be available for the presenter at the conference. All poster boards are located around Auditorium 2. Posters with numbers 1-40 are displayed on the 1st floor and posters with numbers 41-97 are displayed on the 2nd floor.

B1: BASIC PSYCHOLOGICAL NEEDS

1. The influence of basic need satisfaction on binge eating

Name: Neetu Abad
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Organization: University of Missouri, Columbia, USA
Co-authors: Ken Sheldon

Abstract:
In the United States, approximately 25 million individuals are struggling with binge eating disorder or issues related to binge eating (Shisslack et al., 1995). This study investigated the role of basic need satisfaction, as defined by Self-Determination Theory, to explain possible underlying psychological factors associated with this maladaptive eating behavior. Specifically, we posited that when individuals do not have their basic needs of autonomy, competence, and relatedness fulfilled, they will turn to binge eating as a way to cope with their need deficits. 155 university students completed a 4 week longitudinal study in which they were asked to report their need satisfaction, distress, and engagement in binge eating over the past week. Multilevel modeling revealed that deficits in autonomy and competence predicted increased preoccupation with food and binge eating, and that both autonomy and competence remained significant when negative affect was controlled for. Additionally, the combination of low autonomy and high negative affect produced the most negative outcomes. Implications for the importance of basic need satisfaction and negative affect in understanding binge eating, as well as the programmatic implications of our findings are discussed.

2. Sources of satisfaction and dissatisfaction sources for emerging adults self-determination: Exploratory study with Portuguese subjects

Name: Margarida Amaral
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Organization: University of Coimbra, Portugal
Co-authors: Franco-Borges

Abstract:
The main goal of our proposal is to discuss some data from an exploratory study about satisfaction and dissatisfaction sources for self-determination (Deci & Ryan, 2000) of emerging adults (Arnett, 2000). This research was carried out from a sample of 200 Portuguese subjects aging between 20-35 years old, already working or looking for the first job. Considering that well-being is associated to one’s sense of life granted for meaningful, satisfying and context sustainable aspirations (Ryan & Deci, 2001; Little, 2007), and that sustainability perception (affordance) varies as a function of prominent context characteristics (Vondracek, Lerner & Schulemberg, 1986), we gathered data about 1) autonomy, competence and relatedness’ satisfaction degree (BPNS-G - Deci & Ryan, 2000); 2) life projects content, satisfaction and obstacles life sources; 3) socio-demographical data. From the data we emphasize the following ones: 1) the satisfaction degree of autonomy, competence and relatedness has differentiated associations with age, academic qualifications, marital status, income, obstacles, satisfaction sources and personal life projects content; 2) family and monetary obstacles are differently related with psychological needs satisfaction degrees; 3) family as a satisfaction source and
interpersonal life projects are positively related with satisfaction degree of all three needs; 4) love relationship, friendship and work satisfaction sources are respectively related with relatedness and competence satisfaction degrees. We conclude that emerging adult’s self-determination is strongly influenced by satisfaction and dissatisfaction sources, and by life projects content. Future research guidelines are discussed (Ryan, Huta & Deci, 2008; Patrick, Knee, Canevello & Lonsbary, 2007).

3. Turning regret into positive reflections:
The moderating effect of psychological basic needs

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Co-authors: Szi-Hsien Yu; Yi-Cheng Lin; Chin-Lan Huang

Abstract:
Regret, though frequently featured with disappointment and rumination, could also serve positive functions such as reflection, upturn intention, and behavioral improvement. Self-determination theory asserts that general satisfaction with three psychological basic needs of autonomy, competence, and relatedness is beneficial to psychological adjustment and behavioral quality. The present study examined the moderation effect of the need satisfaction (NS) on the relationship between regret and its negative and positive consequences. The authors hypothesized that the inhibition of negative consequence and the enhancement of positive consequence of regret should be strengthened under high NS. Eighty Taiwanese undergraduates were recruited to assess their general NS and regret of grades in the past semester, and then kept track on their thoughts and behaviors related to learning in the following month. The results showed that although high NS didn’t inhibit ruminations from regret events, they did enhance reflections. Furthermore, among the three basic needs, the satisfaction with relatedness tended to be the major force that turned regret into promoting upturn intention and behavioral improvement. The authors argued that people do look back in time to what happened in the past and unlikely not to feel regret to some misdeeds. How to get out of the mud of rumination requires secure interpersonal atmosphere that supports genuine self-reflection. The findings and its relations to Chinese cultural wisdom of self-cultivation was discussed.

4. The developmental consequences of need conflict

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Organization: McGill University, QC, Canada
Co-authors: Richard Koestner; Genevieve Taylor; Hugo Gagnon

Abstract:
The conflict between the needs for autonomy and relatedness is particularly meaningful in the context of parent-child relationships during adolescence as adolescents need to learn how to make their own choices and act according to their values while maintaining close and secure familial relationships (Allen et al., 2003; Gutman & Eccles, 2007; LaGuardia & Ryan, 2002; Larson & Richards, 1991; Steinberg & Morris, 2001). If the environment does not allow for this learning process to take place, the adolescent’s growth is stunted. In a prospective study with 290 high school students, we focused on the consequences of autonomy-relatedness conflict on self-esteem and need satisfaction in school. We hypothesized that need conflict in parent-child relationships would lead to decreases in self-esteem, as been shown with inauthentic relationships and conditional regard. We further hypothesized that self-esteem would predict decrease school need satisfaction. As Heppner et al. (2008) suggested, self-esteem and need satisfaction a reciprocal relationship and examining multiple domains allowed us to test this hypothesis. As expected, parental need conflict predicted decreases in self-esteem and school need satisfaction. Decreases in self-esteem fully mediated the relationship between need conflict and school need satisfaction.
5. The psychosocial development, preference for the win-win strategy and the structure of the basic psychological needs among high school students

Name: Anna Czuwara
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Abstract:
According to SDT, the degree of satisfaction of three basic psychological needs influences the individuals’ well-being and optimal social functioning (Deci & Ryan, 2000), which express in gratifying relationships and the ability to cooperate. In this study I hypothesized that satisfaction of basic psychological needs is positively related with indicators of psychosocial development as well as with the tendency to cooperation manifesting in a win-win strategy. The studies, with the use of following methods: Basic Psychological Needs Scale by E. L. Deci and R. M. Ryan, Cooperation-Competition Questionnaire by A. Czuwara and Psychosocial Development Inventory (based on E. Erikson’ theory) by G.A. Hawley, were conducted among high school students (N=303, 17-19 years, from Lublin Voivodeship, Eastern Poland). Through the cluster analysis were identified 4 groups of individuals (actively cooperating, competitive, manipulating and shy) which significantly differ in both the basic needs satisfaction and the level of psychosocial development. The cluster analysis on the BPNS showed the difference in balance of need satisfaction in identified groups. In contrast to high and average scores, low scores correlate with imbalanced needs satisfaction. Groups with low scores significantly differ in level of relatedness need satisfaction, yielding specific pattern of the rest of needs. The study confirms that the fulfillment of the basic needs is associated with the quality of psychosocial functioning. It also indicates the connection between basic psychological needs satisfaction, in particularly the need for relatedness and cooperation.

6. Mortality salience and perceived needs facilitate cognitive performance on a worldview consistent task

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Co-authors: Rui Zhang; Jeff Schimel; Joseph Hayes

Abstract:
Terror management theory (TMT) and self-determination theory (SDT) have accumulated a large literature over the last two decades. However little empirical research has been conducted examining a possible relationship between the two theories. We tested if mortality salience (MS) would increase cognitive performance on a worldview consistent (vs. inconsistent) reading comprehension task. Participants with a pro-creation or pro-evolution worldview were given MS or dental pain (DP) salience, read a pro-creation article, and then completed a test of their comprehension of the article. Consistent with TMT, results indicated that for creationists, MS increased performance on a series of multiple-choice questions about the article relative to DP salience. A series of items from the Intrinsic Motivation Inventory also measured participants’ interest, value, relatedness, effort, pressure and competence in regards to the article and the author. There were trends for creationists to feel more related toward the author as well as to report more interest and value in the article after MS relative to creationists in the DP condition. This suggests that relatedness, interest, and value contributed to, but cannot fully account for the increased performance shown by creationists under MS. Regressional analyses showed relatedness, interest, value and competence accounted for substantial variance in performance for creationists in both MS and DP conditions. Whereas the same pattern was shown for evolutionists in the DP condition, under MS evolutionists’ performance was not affected by these variables. This suggests that MS may work in conjunction with perceived needs only when information is worldview consistent.
7. Motivation to volunteer
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Organization: Diakonhjemmet University College, Oslo, Norway
Co-authors: Asbjørn Kaasa

Abstract:
The purpose of this study was to empirically examine factors influencing motivation to volunteer. Two aspects of volunteers’ motivation were investigated. Firstly, factors influencing people to start volunteering were examined. Secondly, the motivation to continue volunteering was explored. Drawing on Self-determination theory (SDT) and Volunteer functions inventory (VFI) a questionnaire was sent to volunteers working for a non-profit organization in Norway. A total of 107 volunteers completed measures of autonomy, competence, relatedness and intrinsic motivation. The response rate from the random sample of volunteers was 76 percent. Further, two focus groups consisting of five and seven volunteers were carried out. About 99 percent of the volunteers were women. Average age of the respondents was 56 years. Almost 80 percent of the sample volunteered 2-4 hours per week and 51 percent of the respondents were permanently employed outside the non-profit organization. As the analyses from the survey and focus groups are still in progress, further results are not yet included in the summary. Theoretical and practical implications will be discussed. The current study contributes to previous work on volunteer motivation in at least two ways. Much of the research on volunteer motivation has focused on motivation to start volunteering. There is a dearth of studies examining what motivates people to continue volunteering. This study includes both aspects. Further, despite the strong empirical foundation of SDT, relatively few studies have applied the theory in a voluntary setting.

8. Need images: An explorative approximation to a basic psychological need picture scale
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Abstract:
Background. Picture scales are more suitable than verbal scales for special groups (e.g. children or people with cognitive disabilities). The purpose of the present study is a first empirical approximation to a basic psychological need picture scale to support need-oriented research with these target groups. Method. In focus groups we developed a need picture scale (NPS) consisting of 21 drawing pairs. Each pair was developed closely to the meaning and content of the 21 items in the Basic Psychological Need Scale. Each item shows a positive connoted picture (need satisfaction) and a negative connoted one (two-point rating scale for each picture). In this first study 482 sport students (mean age 21.4, SD 1.9; 34 % female; 66% male) filled in a NPS-version with short comments on the pictures (NPS-C) or an uncommented version (NPS-UC) respectively. Results. Fit indices of CFAs of both versions were unacceptable. The reliability of the relatedness subscale was higher (NPS-C .79; NPS-UC .66) than for the competence subscale (NPS-C .60; NPS-UC .44) and the autonomy subscale (NPS-C .63; NPS-UC .41). Qualitative analysis of the EFA revealed obvious misunderstanding of single pictures while other items seem to be developed well. Discussion. The theoretical structure of the three basic need dimensions is not represented by the NPS. However, qualitative data analysis revealed some pictures covering the need dimensions very well. Based on this, qualitative studies are needed to deepen knowledge on figural symbols or typical situations especially for the satisfaction of autonomy and competence.
9. Structural relationships among psychological need satisfaction and well-being in Korean adolescents

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Abstract:
The purpose of the present study was to investigate the structural relationships among the three basic psychological needs identified in self-determination theory - namely, the need for autonomy, competence, and relatedness among Korean adolescents (N = 1055). In addition, their interrelationships were examined when in a structural model with well-being. The basic psychological needs scale was used as the basis for this Korean version of the scale (Lee & Kim, 2008). In a confirmatory factor analysis, autonomy and competence were more strongly correlated with each other than was relatedness. A structural equation modeling analysis was conducted to confirm the relationship between the basic psychological needs with well-being as an outcome. The model tested whether the effect of autonomy on well-being was mediated by relatedness and competence. The results showed that autonomy had a direct effect on competence, relatedness, and well-being, but that the effect of autonomy on well-being was partially mediated by competence. However, relatedness was not significantly associated with well-being in this sample.

10. Basic need satisfaction through leisure time activities and its relationship to adolescents’ life satisfaction

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Abstract:
Background: Participation in leisure time activities constitutes an important part of young people’s lives, and participation in organized activities has in particular been considered a possible contributor to well-being and good mental health. Adolescent need satisfaction in the setting of leisure time activities is, however, underexplored. The aim of this study is therefore to explore to what extent participation in organized leisure time activities satisfies adolescents’ basic needs for autonomy, competence and relatedness and how the need satisfaction is related to their life satisfaction. Method: A nationally representative sample of 3273 adolescents, age 15 and 16, from the Norwegian part of the “Health Behaviour in School Children, A WHO Cross-National Study” (HBSC) was used. The Basic Need Satisfaction at Work scale was adapted to measure adolescent need satisfaction of autonomy (7 items), competence (6 items) and relatedness (8 items) in leisure time activities. The Participation was measured by a list of 22 organized and non-organized activities. Life satisfaction was measured by Huebner’s Life Satisfaction Scale. Results: Preliminary analysis indicated that satisfaction of needs for competence (Cohen’s d=0.4), and relatedness (Cohen’s d=0.8) was significantly higher in adolescents who participated in organized activities than those who participated in unorganized activities. All three needs were positively associated with life satisfaction when controlling for gender, and organised/non-organised activities (D = 0.27-0.35, p<0.001). Conclusion: As organized activities, in particular, promote higher levels of need satisfaction and life satisfaction, local communities should give effort to provide opportunities for all children and adolescents to participate in such activities.
B2: DEVELOPMENT AND PARENTING

11. Cross-cultural equivalence of the assessment of maternal psychologically controlling parenting: A comparison of dependency-oriented and achievement-oriented psychological control between Jordanian and Belgium samples

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Abstract:
According to Self Determination Theory (Deci & Ryan, 2000), parents’ rearing practices—including both controlling and autonomy supportive practices—play a critical (positive, respectively, negative) role in adolescents’ psychosocial development across the globe. However, the cross-cultural relevance of this notion has been challenged. For example, Chao and Aque (2009) have argued that Chinese adolescents feel that their parents’ control is the parents’ basic responsibility, leading these youths to think of parental control as a normal, legitimate reaction. Against the background of this controversy, we examined the measurement equivalence of a recently developed measure of psychologically controlling parenting, distinguishing between dependency-oriented (DPC) and achievement-oriented (APC) psychological control. We addressed this question in a study of 298 Arabic Jordanian mothers and adolescents in grades 9 to 11. Specifically we examined whether a factor analysis would yield evidence for a distinction between DPC and APC and using multi-group analysis we examined whether this factor structure would be equivalent between Jordan and Belgium, two countries differing substantially in terms of collectivism/individualism. Further, we addressed the validity of this distinction (a) by examining convergence between maternal and adolescent reports of psychological control and (b) by examining whether associations between the two domains of psychological control and other dimensions of parental need support (e.g., responsiveness and autonomy-support) would be similar in both countries. Together, the findings support the notion that experiences of psychologically controlling parenting are similar in Jordan and Belgium and, as such, challenge the idea of qualitative differences in how parenting behaviors are interpreted across cultures.

12. Expecting parents’ beliefs in conditional regard and autonomy support as socializing practices: Parental, self-esteem and world-view determinants

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Abstract:
Past research has shown that the parental orientation of conditional regard (CR) has negative relations with positive child development outcomes whereas the reverse is true for parental autonomy support (AS, e.g., Roth et al., 2009). Past research has also shown that endorsement of CR is predicted by: (a) experiencing one’s parents as conditionally regarding, (b) contingent self-esteem, (c) extrinsic values, and (d) a “predatory-competitive” world view (e.g., Assor et al., 2008).

This research seeks to replicate and extend these findings with a sample of 160 parents expecting the birth of their first child. The study includes the following innovative features: (1) The unique sample enables assessment of potential determinants of parents’ inclinations to use CR and AS prior to the establishment of concrete relationship with the child, (2) We examine the role of contingent self-esteem, extrinsic values and a competitive world-view as mediators of the effects of expecting parents’ experiences of their parents’ CR and AS on their own beliefs in CR and AS, (3) Given the difficulties involved in assessing CR and AS s via self-report, this study assesses CR and AS child-rearing orientations based mainly on coding of participants’ responses to brief videos and vignettes depicting parent-child interaction; Initial evidence suggests that this new procedure provides deeper understanding of the dynamics underlying parents’ endorsement of CR and AS, (4) Assessment of attachment experiences and orientation allows us to determine if the effects of experiences of parents’ CR and AS emerge also when attachment variables are controlled for.
13. Supporting children’s autonomy: The importance of considering children as separate individuals

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Abstract:
Parental autonomy support is linked to positive consequences for children’s development (Joussemet et al., 2005). Autonomy support may be operationalized as providing choice, acknowledging feelings and giving rationales for rules, while refraining from using psychological control (Mageau & Vallerand, 2003). Drawing on past research, it is proposed that, to be autonomy-supportive, parents have to consider children as separate individuals (Grolnick, 2003). Specifically, two new determinants of autonomy support are proposed: parents’ empathy and self-esteem contingencies. On one hand, research shows that empathy is related to general parental support (Soenens et al., 2007). It is proposed that, by enabling parents to take their children’s perspective and see them as separate individuals, empathy is also positively linked to autonomy support. On the other hand, experimental studies have shown that ego-involved teachers are less autonomy-supportive (Deci et al., 1982). It is proposed that contingencies between parents’ self-esteem and children’s achievements will also impede parental autonomy support by leading parents to focus on outcomes and forget their children’s inner experiences. 109 mothers filled out measures of empathy, self-esteem contingencies, autonomy support, socioeconomic status (SES) and child temperament. Results show that, controlling for SES and temperament, empathy is positively related to autonomy support (δ=.24, p<.01), while self-esteem contingencies are negatively related to this parenting style (δ=-.34, p<.001). Specifically, empathy is associated with the adoption of autonomy-supportive behaviors (δ=.39, p<.001) but not controlling behaviors, while the reverse is true for self-esteem contingencies (δ=.44, p<.001).

14. Effects of mother’s autonomy support and conditional regard on their children’s perceptions of their mothers’ attitudes, academic self-efficacy, and achievement: Mediating role of children’s autonomous motivation

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Abstract:
In this study, we will examine whether the children’s perception of their mothers’ autonomy support and positive and negative conditional regards will be influenced by their mothers’ reported autonomy support and conditional regards, which in turn will influence children’s academic self-efficacy and achievement. Furthermore, we will examine the mediating effect of children’s autonomous motivation on both self-efficacy and achievement. Deci and Ryan(2000) have contend that mothers’ parenting practices influence their children’s autonomy through the fulfillment of their children’s need for relatedness and autonomy. In this study, we will analyze data from 489 mothers and their children of elementary 4th through 6th graders in Korea. Mothers have responded to three scales, i.e., parental autonomy support, conditional positive regard, and negative regard scales; children have responded to five scales, i.e., perceived mother’s autonomy support, conditional positive and negative regards, autonomous motivation, and academic self-efficacy scales. Children’s academic achievement data have been also collected from their home room teachers. The expected results will be that mothers’ autonomy support and conditional regards will influence children’s perception of their mothers’ attitudes which in turn will influence their autonomous motivation. The influences of autonomous motivation will then mediate the effect of children’s perception of their mothers’ attitudes on academic self-efficacy and achievement. The results will be discussed in relations to the self-determination theory and findings from Assor, Roth, and their colleague’s research on parental conditional regard.
15. Construction and validation of the Perceived Parental Autonomy Support Scale (P-PASS)

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Abstract:
The purpose of the present research is to develop and validate the Perceived Parental Autonomy Support Scale (P-PASS), which is designed to assess autonomy support and psychological control (Grolnick & Ryan, 1989) in parent-child relationships using a multidimensional perspective. Results of two studies provide support for the P-PASS's theoretical factor structure, reliability, and validity (Study 1, N = 211, mean age = 18.42; Study 2, N = 314, mean age = 18.34). Specifically, confirmatory factor analyses support the two second-order factor structure of the scale and Cronbach’s alphas confirm its internal consistency (i.e., .76 < alpha < .88). Correlation patterns among the P-PASS subscales, the Psychological Control Scale from the Youth Self-Report (PCS-YSR; Barber, 1996), and other parenting dimensions (i.e., parental acceptance and monitoring) support the convergent and divergent validity of the P-PASS. The P-PASS also predicts young adults’ psychological adjustment (i.e., life satisfaction, positive affect, and self-esteem) above and beyond the PCS-YSR, a unidimensional measure of psychological control. Importantly, the P-PASS also demonstrates predictive validity when parental acceptance and monitoring are controlled. The theoretical and methodological implications of this new scale for the investigation of autonomy support in parent-child relationships are discussed.

16. Attribution style as a predictor of autonomy supportive parental practices

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Abstract:
Autonomy Supportive Parental Practices (ASPP), as defined by Self Determination Theory (SDT, Ryan & Deci, 2000) are argued to promote children’s well being. Indeed, ASPP such as providing choice and taking the child’s perspective were found to predict children’s sense of being unconditionally accepted by their parents. This study focuses on one personal disposition assumed to promote ASPP: Child Serving Attribution Style (CSAS). Individuals scoring high on CSAS attribute their child’s positive behaviors to stable, global and internal causes, and their child’s negative behaviors to unstable, local and external causes. We hypothesized that high CSAS parents would adopt more autonomy supportive parental practices, which in turn would predict child’s sense of unconditional acceptance. Based on an extant instrument (Johnston & Ohan, 2005), we developed and validated a CSAS scale, which assesses the extent to which parents tend to interpret children’s behaviors in a positive way. Results from 132 participants (66 7th graders and their mothers) supported the hypotheses. First, our finding replicated previous results indicating that ASPP such as providing choice and taking the child’s perspective predict children’s sense of unconditional acceptance. Next we found that maternal report on CSAS predicted ASPP as well as children’s sense of unconditional acceptance by their parents. Lastly, we demonstrated that the association between CSAS and the child’s sense of unconditional acceptance is mediated by mothers’ inclination to use ASPP. Discussion focuses on implications for understanding the personal and inter-personal dynamics underlying parents’ capacity to support their children’s autonomy.
17. Parental conditional positive regard and psychological control: Determinants of self-aggrandizement motivation versus a-motivation?

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Abstract:
Research has identified a form of parental control which was rarely studied so far: Parental conditional positive regard (PCPR, Roth et al., 2009; Assor et al., 2007). In this type of control, parents motivate children to comply by providing more regard when children enact parentally valued behaviors. Research has shown that PCPR is associated with various maladaptive correlates. One critic of these findings is that PCPR only reflects the approach of parental psychological control (PPC, Barber, 1996) and nothing more. This study examines the hypothesis that PCPR is distinct from PPC. Specifically, we hypothesized that PCPR, unlike PPC, is associated with a fragile and grandiose self-esteem dynamics, which drives people to compulsively invest effort in the enactment of parentally valued behaviors (i.e., introjected-approach motivation aimed at attaining the longed for positive regard). In contrast, because PPC only includes punitive means of control (e.g., love withdrawal; rejecting parental behaviors which the child has no influence on), we hypothesized that PPC would be associated with reluctance to invest effort in parentally valued actions. Finally, because both PCPR and PPC are controlling practices, both were hypothesized to be unrelated to autonomous internalization. The study compared PPC and PCPR in the academic achievement domain; therefore the standard PPC items were adapted to this domain. Results from 140 college students supported the hypotheses. Thus, it appears that while the PPC measure is associated with a-motivation and challenge-avoidance, PCPR leads to introjected approach-motivation driven by a fragile and grandiose self esteem dynamics.

18. The joint influence of perceived parental conditional regard and maternal warmth on Korean children's autonomous motivation

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Abstract:
Despite the well documented evidences that controlling behaviors have negative consequences on children’s socialization and emotion, the use of parental control to their children seems to be one of the most prevailing parenting practices. Recently, Roth, Assor, Niemiec, Ryan, and Deci(2009) examined the effects of parental conditional regard(PCR) and found that perceived PCR had both positive and negative influences on children’s emotional and academic consequences, which have led them to suggest extension of the previously conceptualized notion of PCR. They have proposed to distinguish parental conditional positive regard(PCPR) which involves parents’ providing more attention and affection when their children show desired behaviors from parental conditional negative regard(PCNR) which involves parents’ withdrawal of attention and affection when their children do not behave as they expected. While parent’s strictness is conceived as hostility, aggression, mistrust, and obedience among American parents (Kim & Chun, 1994), among Asian parents, the strictness is equated with manifestation of warmth and less indifference (Rohner & Pettengill, 1985). Thus, it is expected that the perceived parental conditional regard will be differed depending on perceived warmth which will show different outcomes in compliance with perceived parental conditional positive and negative regards among Korean children. In this study, we will analyze data from 489 children of elementary 4th through 6th graders. They have responded to three scales, i.e., perceived parental conditional regard and mother’s warmth, and autonomous motivation. It is expected that the relation between perceived parental conditional regard and autonomous motivation will be mediated by the perceived warmth.
19. Parenting and adolescent psychosocial adjustment problems: Self determination as a mediator
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Abstract:
The aim of this study was to examine the mediating role of Turkish adolescent’s self-determined functioning in the link between parenting and psychosocial adjustment problems. It was shown that adolescents’ self determined functioning was a motivational mediator between perceived autonomy supporting environment and outcomes in specific life-domains (Deci and Ryan, 2000; Grolnick et al., 1991; Soenens and Vansteenkiste, 2005). Participants were 527 middle class urban adolescents (243 girls and 284 boys) and their mothers and fathers. Mean age of the adolescents was 14.37 years (SD = .32). All measures were reliable and validated questionnaires and were gathered in group sessions. Mothers’ and fathers’ supportive parenting was measured as the combination of high autonomy support and low psychological control. Adolescent’s loneliness and low social initiation were indicators of internalizing problems. Relational aggression, common among boys and girls in our sample, was selected as a measure of externalizing. Structural Equation Modeling revealed that self-determination at T2 (controlling for stability in self determination) fully mediated the relations between maternal supportive parenting and adolescent internalizing problems and relational aggression at T2 (again controlling T1-measures of these outcomes), however self-determination only partially mediated the relations between paternal supportive parenting and adolescent’s adjustment problems. This study contributes to the literature supporting that self-determination is a universal mechanism between parenting and adolescent’s adjustment, whereas also pointing out some cultural differences.

20. Home leaving and subjective well-being in emerging adulthood: Role of motivation
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Abstract:
In Western, postindustrial societies, the timing of home leaving is increasingly delayed. The diversity of home-leaving patterns, resulting from this evolution, has not yet been systematically studied from a psychological perspective. In this study, the authors aimed to examine how emerging adults’ living arrangements--and the motives underlying those arrangements, as conceptualized in self-determination theory--relate to subjective well-being. A Belgian sample of 224 emerging adults and their parents completed self-report questionnaires. Analyses that used structural equation modeling showed that autonomous motivation for one’s living arrangement is more strongly related to emerging adults’ well-being than the living arrangement per se. Further, autonomy-supportive parenting was found to relate positively to an autonomously regulated residential status. Implications for the meaning and development of autonomy during emerging adulthood are discussed.
B3: EDUCATION

21. Effects of goal orientation and self-regulation on creative behaviors
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Abstract:
The present study aimed at examining the influence of two motivational variables - achievement goals and regulatory focus on creativity. A total of 824 Grade 7 students took part in completing a questionnaire which comprised of an alternate use item of a standardized creativity assessment, a creative problem solving task, an instrument on achievement goal and two instruments on regulatory focus. Positive and moderate correlations were found between promotion focus and creativity, as well as between performance-approach goal and creativity. Regression analyses indicated that the strongest predictor for creativity was promotion focus. Achievement goals served as a mediator of regulatory focus on creativity.

22. The relationship structure between creativity and learning motivation
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Abstract:
The purpose of this study was to investigate the relationship between creativity and learning motivation. Learning motivation includes goal orientation and self-determination. Four research questions were issued. The first question is about the relative relationship between creativity and intrinsic motivation vs extrinsic motivation. The second one was about the differentiated relationship between sub-creativities and learning motivation. The third was about the relationship structure between creativity and learning motivation. Final question was about the generalizability of relationship structure. Subjects were 507 5th and 6th elementary graders from 5 cities of Korea. Creativity was measured by selected items from an integrative creativity scale. Correlation matrix and cannonical correlation analysis were utilized as statistical procedure. First result indicated that creativity was more largely related to the intrinsic motivation than to the extrinsic one, and the direction of two relations was different. Second result showed that creative motivation, attitude, and potency were not differentiated in terms of the magnitude of relationship with learning motivation. Third result revealed a meaningful relationship structure between creativity and learning motivation. Two canonical variables could be labeled as the integrative creativity and the integrative learning motivation. Fourth result displayed the generalizability of this relationship structure. Theoretical value and practical implications were discussed.
23. Relations among environmental perceptions and self-efficacy with metacognitive strategies  
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Abstract:  
The aim of this research is studying the relations between environmental perceptions and self-efficacy with metacognitive strategies. To doing, a multistage cluster sampling method was used and a sample of 685 third grade boy students from Tehran high schools, were selected. Students’ self-efficacy (Pintrich and De Groot, 1990), Students Perceptions of Classroom Activities, (Gentry and his colleagues, 2002), and Perceptions of Parents Scales (Grolnick and his colleagues, 1997) were administrated to students as a group. Questionnaires validity and reliability were satisfactory. The results of Pearson correlation showed that the mutual correlation between components family environmental perceptions (parents warmth and autonomy support), perceptions of classroom activities (interest, challenge, choice and joy) and self-efficacy were significant (p< 0.01) and metacognitive strategies were predictable by environmental perceptions (class and parents) and self-efficacy.

24. A multidimensional career decision-making model for undergraduates using a self-determination theory approach  
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Abstract:  
University students in the United States are often in the midst of exploring the possibilities for future vocations as well as avocations. Finding ways for students to consciously and constructively make informed decisions about their future careers is one goal in higher educational practice. Previous work suggests that self-determination theory can be used to predict career indecision (Guay, Senécal, Gauthier, & Fernet, 2003), concluding that competence and autonomy relate to career indecision in college students. The present study applies self-determination theory to the examination of career exploration and counseling embedded in the context of introductory coursework in Education. Using the Choosing a Career in Teaching survey (using items adapted from the FIT-Choice assessment (Watt & Richardson, 2007)), as well as the Career Guidance Inventory (Nowak, St. Martin, & Rawls, 2009), relations among competence and autonomy will be assessed in a sample of approximately 160 predominantly undergraduate students at a large research university in the Midwest. Additionally, students’ reflections on their CGI-SV scores, reflections on a professional observation, and a final course reflection will be analyzed for content related to the value of the various activities to the decision-making process. This investigation is guided by the following research questions: • How are competence and autonomy related to students’ motivations for teaching? • How are feelings of competence and autonomy related to students’ perceptions of parental support for teaching as a career? • How do feelings of competence and support related to students’ feelings of satisfaction with career choice?
25. The effect of interaction between students’ relatedness and the extent to which their significant others think studying as important on academic motivation and amotivation

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Abstract:
According to SDT, relatedness is centrally important for internalization of motivation. Legault et al. (2006) reported that affiliation with parents, teachers and friends was associated with multidimensional academic amotivation. However, Ryan and Deci (2000) suggested that the primary reason why people initially perform extrinsically motivated actions is because the behaviors are valued by significant others. Therefore, it is expected that not only affiliation with significant others, but the extent to which they think studying as important would be also essential for students’ academic motivation. In this study, participants were 390 students attending middle schools in Japan. They conducted questionnaires that included some scales assessing academic self-regulation, new multidimensional amotivation, and items of the extent to which their parents, teachers, and friends think studying as important, and items of affiliation with them. New multidimensional amotivation subscales were negative task characteristics, little value of studying, no learning strategy, fascination with other activities, and negative evaluation from friends. Following regression analysis, interaction effect between affiliation and importance was significant on identified regulation, introjected regulation and all multidimensional amotivations. This effect suggests that even if students have established good relationships with significant others, the fact that they put a little value on studying leads to amotivation instead of motivation.

26. Validity of Strength of Motivation for Medical School (SMMS) questionnaire and it’s relationship with perceived autonomy and competence

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Abstract:
Background: The Strength of Motivation for Medical School (SMMS) is defined as the applicant’s or student’s readiness to start and continue medical training regardless of sacrifices, setbacks, misfortune or disappointing perspectives. The SMMS questionnaire is the only known questionnaire for measuring level of motivation particularly in medical students, but the validity of the questionnaire needs to be confirmed with more studies and bigger samples.
Aim: To establish the validity of the Strength of Motivation for Medical School (SMMS) Questionnaire and to determine the relationship between Strength of motivation and perceived autonomy and competence. Methods: 1591 medical students from two different universities filled out SMMS questionnaire, Academic Motivation Scale (AMS based on the Self-Determination Theory) measuring intrinsic motivation, spectrum of extrinsic motivation and amotivation, Learning Climate Questionnaire (LCQ), Perceived Competence Scale (PCS), Maslach Burnout Inventory-Student survey measuring study stress. The scores on these scales were analysed for correlations. Results: Strength of motivation for medical school positively correlated (Pearson correlation coefficient r= 0.384 to 0.150) with Intrinsic Motivation, the Identified Regulation, Introjected Regulation scores in the descending order and negatively with Extrinsic Regulation and amotivation(Pearson correlation coefficient r= -0.09 and -0.250 respectively) and study stress (r= -0.208). Strength of motivation for medical school also positively correlated with perceived autonomy in the learning environment and perceived competence. Conclusion: SMMS questionnaire has good concurrent validity when compared with scores of AMS. Students who had higher strength of motivation were also the ones who perceived higher autonomy in the learning environment and also higher self-efficacy/competence.
27. Direct and indirect effect of motivation for learning on adult students’ approaches to learning through the perceptions of workload and task complexity
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Abstract:
The present study investigates the direct and indirect influence of motivation for learning, as understood by the self-determination theory, on adult students’ approaches to learning. Participants in this study were 128 students enrolled in a course on the theory of group work. After an introduction to theory, students were asked to undertake four assignments. The assignments were constructed in such a way that they would induce a specific (high or low) workload and task complexity condition. At the beginning of the course students filled in an adapted version of the Self-Regulation Questionnaire (SRQ) (Ryan & Connell, 1989), developed within the framework of the Self-Determination Theory (Ryan & Deci, 2000). This questionnaire focuses on the reasons why people learn within a particular setting and why people engage in learning-related behaviours. After each assignment, the learning approach questionnaire was completed, together with the questionnaire on perceived workload and perceived task complexity. Concerning the direct influence of motivation, results show that autonomous motivation is positively related to a deep approach to learning and negatively to a surface approach. Motivation also has an indirect effect on adult students’ approaches to learning through the perceptions of workload and task complexity, in particular through the perception of a lack of information. The greater the extent to which students are autonomously motivated, the less they perceive that they have a lack of information and the less they are inclined to adopt a surface approach to learning.

28. Appealing characteristics of role models, school values, and school motivation
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Abstract:
The goal of the present project was to examine the associations between the engaging features of favorite role models, school values (of role models and students), and school motivation. One thousand students were recruited in Quebec high schools from the Gatineau/Ottawa area (Canada). Participants completed a qualitative questionnaire comprising open ended questions about their favorite role model and the qualities that they admire in that person. They also filled in the School Values Scale and the Academic Motivation Scale. The written statements about the appealing characteristics of role models were coded and classified, according to the motives that they represent, using a grid composed of the six forms of motivation proposed by Self-Determination Theory: Intrinsic motivation, extrinsic motivation by integrated, identified, introjected, and external regulation, and amotivation. Results revealed that when the appealing characteristics of role models represented self-determined motives and when role models valued education, school values and school motivation were significantly higher. Results are discussed in terms of their fundamental and applied implications.
29. Graduate students’ autonomous and controlled motivations as predictors of their attribution-based emotions following negative feedback
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Co-authors: Frédéric Guay

Abstract:
Most graduate students at some point receive negative feedback from their academic advisor that can elicit negative emotions. Some studies have shown that autonomous motivation predicts emotions and affects in various contexts (Gaudreau, Amiot, & Vallerand, 2009; Liu, Wang, Tan, Koh, & Ee, 2009). The purpose of this study was to examine the relationship between students’ autonomous and controlled types of motivation based on SDT (Ryan & Deci, 2000) with their attribution-based emotions (Weiner, 1985) following negative feedback from their advisor. We hypothesized that graduate students who complete their degrees for autonomously motivated reasons will be more hopeful and experience less intense guilt, helplessness, anger, shame, and regret in face of a hypothetical failure. Alternatively, it was expected that students completing their degrees for controlled motivations will experience these negative emotions with greater intensity and be less hopeful. Participants were 107 graduate students at a French-Canadian university (age in years: M = 28.3, SD = 6.2). Students first completed a questionnaire assessing academic motivation. Afterwards, students read a hypothetical scenario in which they received negative feedback from their advisor, and were asked to respond to 6 emotion items. Results indicated that autonomous types of motivation were positively associated with hopefulness, but negatively related to anger and regret. Furthermore, guilt, helplessness, shame and regret were positively associated with controlled types of motivations. Findings are discussed in light of Self-Determination and Attribution Theories, and regarding implications for student motivation and performance.

30. Contribution of self-determination in predicting sustained attention in the classroom
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Co-authors: Alain Guerrien

Abstract:
Attempting to gather motivation and attention is the main purpose of the works we are performing. Attentional difficulties may be considered in several ways, according with the various processes embodied in “Attentional System” (Cohen, 1993). Thus, the sustained attention approach is the main manner to account for the difficulties to remain involved in lasting activities. In the field of sustained attention research, we emphasized the fact that self-determination and intrinsic motivation could lead to a stabilizing effect upon attention (Guerrien & Mansy-Dannay, 2003). Attentional difficulties in the classroom lead to the emergence of several behaviors, such as chatting, disturbing other pupils, dreaming, playing with materials… These off-task behaviors could reveal distraction: their appearance is associated with a lack of attention to the teacher or toward the current scholar task. In search of variables leading to the apparition of off-task behaviors, we selected four factors: reduced self-determination, weak perceived competence, fatigue and emotional rumination. Our poster presents preliminary results for the validation of a new questionnaire, including four subscales. 34 children (9 to 11 years old, primary school) participated to the study. Each child was observed (off-task behaviors) six times in the classroom. Then they fulfilled the questionnaire. Reduced self-determination, fatigue and emotional rumination make a significant contribution in predicting the frequency of off-task behaviors (respectively $\beta=.386$ $t= 2.365$ p=.024; $\beta=.390$ t= 2.394 p=.023; $\beta=.537$ t= 3.602 p=.001), but not perceived incompetence ($\beta=.132$ t= .753 p=.457).
31. Autonomy support and engagement in prekindergarten: Training the teachers  
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Abstract: 
The purpose of this study was to test the influence of three key predictors of prekindergarten teachers’ motivating style and their students’ classroom engagement: (1) Montessori vs. traditional school setting; (2) participation in an intervention program designed to help teachers learn how to be more autonomy supportive; and (3) the teacher personality characteristic of autonomy-supportive vs. controlling. All teachers initially completed the Problems in Schools questionnaire (to assess the autonomy supportive vs. controlling personality characteristics) and participated in a theory-based intervention to help them incorporate autonomy-supportive classroom techniques, using both face-to-face training as well as access to a study-specific website. During the data collection process, trained observers visited all classrooms to rate teachers’ autonomy-support, structure, and involvement and students’ collective engagement. Montessori teachers taught in significantly more autonomy-supportive ways than did the traditional teachers, and this was true both before and after the intervention training, though traditional teachers benefited relatively more from the training experience. Further, and independently of whether they taught in the Montessori or traditional setting, teachers’ scores on the Problems in School questionnaire predicted how autonomy-supportive raters scored them during instruction. When teachers taught in autonomy-supportive ways, their students showed relatively higher engagement than when their teachers taught in relatively controlling ways. Interestingly, student engagement in the classrooms of the traditional teachers was mostly a function of how structured the teachers were. Student engagement in the classrooms of the Montessori teachers was a joint function of how autonomy-supportive and how structured the teachers were.

32. Personality and study environment as determinates of learning motivation in higher education  
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Co-authors: Vesna Busko; Igor Radeka; ana Marija Rogic; Marko Palekcic  

Abstract: 
This study investigates the question how well personality variables and the perceived learning environment predict self-determined learning motivation in higher education. Previous research has predominantly focused on the interrelation between learning environment and self-determined learning motivation. The theoretical basis of the study is the ‘Big Five’ personality model (Goldberg, 1999; McCrae, et al. 2000) as well as the self-determination theory (Deci & Ryan, 2002). We examined the data of 1534 Croatian students with regression analyses and structural equation modelling. The dependent variable is self-determined learning motivation; independent variables are personality traits (Big Five), and the perception of the teaching-learning environment (including the support of basic needs and other relevant variable for instruction). The results of the analyses show that the self-determination theory is also valid in a south-eastern cultural context and that personality variables and the environment are significant predictors for intrinsic learning motivation and autonomous forms of extrinsic motivation. A further significant result is that students’ perceived self-determination decrease after the implementation of the so called “Bologna process“ in Croatia.
33. Autonomous motivation to enter high school in Japan: The effect of autonomy support
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Abstract:
The purpose of the present study was to examine the effect of autonomy support on autonomous motivation to enter high school in Japan. (In Japan, compulsory education ends with the ninth grade, and high school is optional.) Having autonomous motivation to enter high school predicted willingness to attend school and satisfaction with school life (Nagasaku & Arai, 2005). Participants for this study included 133 ninth grade junior high school students. The effects of parent’s and teacher’s autonomy support on motivation to enter high school (amotivation, controlled, identified, autonomous) were identified using forward multiple linear regression analysis. The analyses showed that parent’s autonomy support decreased amotivation and that teacher’s autonomy support decreased controlled motivation to enter high school. On the other hand, teacher’s autonomy support increased autonomous motivation. These result showed that autonomy support could have benefit to internalize motivation to enter high school.

34. The effects of goal orientation and quality of problems on students’ motivation in a problem based learning environment
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Co-authors: Annet te Lindert

Abstract:
In this study, students’ (N= 262) goal-orientation and quality of problems were investigated as predictors of students’ motivation in a Problem-Based-Learning (PBL) environment. PBL is an instructional learning approach that uses problems as a context to acquire knowledge. An important goal of PBL is to enhance students’ intrinsic motivation (Norman & Schmidt, 1992) and therefore, the quality of problems is crucial for students’ motivation. The problem-quality-rating-scale (PQRS; Sockalingam, 2010) was used to measure five problem characteristics (learning issues; familiarity; interestingness; collaborative learning; and critical reasoning). The PQRS showed a five-factor model, fitting the data well, $\chi^2(67) =116.1$, $p<.01$; RMSEA=.05; CFI=.96. Goal-orientation was measured by VandeWalles’ goal-orientation questionnaire (GOQ; 1997) measuring learning- prove-goal-orientation (LPGO), performance- prove-goal-orientation (PPGO), and performance-avoid-goal-orientation(PAGO) supplemented by learning-avoid- goal-orientation (LAGO,Baranick et al, 2007). The GOQ showed the proposed four-factor model, $\chi^2(129)=245.9$, $p<.01$; RMSEA=.06; CFI=.90. Students’ study motivation was measured by the SRQ (VanSteenkiste et al., 2004) converted to study. The SRQ showed a six-factor model fitting the data best, $\chi^2(155)=287.3$, $p<.01$; RMSEA=.06; CFI=.94. The results revealed positive effects for LPGO on intrinsic and identified motivation, for PPGO on introjected-avoid, introjected-approach and extern-others motivation, and a marginal negative effect for APGO on extern-financial motivation. For the quality of problems, positive effects were found for interestingness on intrinsic and identified motivation and for critical reasoning on extern-financial motivation, and a negative effect for collaborative learning on intrinsic motivation. Furthermore, interestingness of problems mediated the relation between LGOP and intrinsic ($Z=2.38$, $p<.01$) and identified motivation ($Z=2.30$, $p<.05$).
35. Development and relatedness of autonomy support, structure, teacher involvement and student engagement: A multilevel growth curve model approach

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Abstract: According to Deci and Ryan (2002), three universal and innate psychological needs motivate the self to initiate behavior: the need for competence, autonomy and relatedness. To actualize the potential of these needs, nurturing and support from the social environment is needed. Likewise, in the contexts of schools, teachers can create environments in which the active engagement and psychological growth of students are supported or thwarted. In this study, the development of autonomy support, structure and involvement in mathematics and English classes (N=40) within one school year is investigated. Attention is paid to the average development and the deviation of individual teachers to this development based on student perceptions. In addition, the development of students’ academic engagement (N=572) is studied and linked with the development of the mentioned support characteristics. Multilevel growth curve modeling is applied. Results reveal not only differences between classes (support characteristics, engagement) and between students within classes, but also differences over time. In general, teacher involvement, autonomy and structure support decrease over time. The decrease is more pronounced for the supportive scales compared to teacher involvement. Teachers’ gender and subject taught cannot explain differences, but the general ability level of the class and being a heterogeneous class do. With respect to engagement it was found that engagement decreases over time, while the decrease becomes less pronounced over time. In high ability classes and students these tendencies are more pronounced. Differences in engagement are associated with differences in autonomy support, structure and teacher involvement.

36. Curriculum effects on middle school students’ levels of critical thinking disposition

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Co-authors: Mark LaVenia; Laura B. Lang

Abstract: Critical thinking is commonly cited as one of the most important abilities for students to develop. Although critical thinking is typically conceived in terms of skills, critical thinking disposition, that is, a student’s intellectual curiosity and motivation toward productive disciplinary engagement, appears to be indispensable if students are to be critical thinkers. Our interest in critical thinking disposition stems from a need to identify measures that are sensitive to the effects of an integrated math/science treatment promoting deep conceptual understanding and problem solving. As part of a larger project, student outcomes include measures of math and science achievement, problem solving through applied tasks, and student disposition toward critical thinking. The study site is a north Florida, low-SES, high minority suburban middle school (N = 812) with a magnet program for academically advanced students that serves approximately one-third of the student body. This study investigates the relation between students’ levels of critical thinking disposition, as measured by the California Measure of Mental Motivation (CM3) and the effectiveness of an interdisciplinary approach to teaching math, science, and technology. The CM3 is a general inventory of critical thinking dispositions. We collected data throughout 2008-2009: a pretest at the beginning of the year and outcomes at the end of each quarter. Preliminary results suggest that gender, race, and free and reduced lunch (FRL) are significantly predictive of students’ posttest levels of critical thinking disposition after controlling for initial status. Final analyses are pending.
37. Promoting self-directed learning among postgraduate students
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   Organization: University Malaya, Selengor, Malaysia
   Co-authors: Prof. Mariani MD NOR

Abstract:
The purpose of this study was to explore factors associated with self-directed learning (SDL) which has received considerable attention in the last decades. Although most current research studies have tried to either apply SDL or describe the characteristics of this phenomenon among adults, the necessity of exploring its possible impact on adults to make them more self-directed learners still exists. Therefore, this study investigated how fulfillment of the basic needs among adults could make them more self-directed learners. For data collection, Self-Directed Learning Readiness (SDLR) scale as a valid instrument for measuring SDL and Basic-Psychological-Needs Satisfaction (BPNS) scale were administrated to a randomly selected sample of 55 Malaysian postgraduate students. Findings indicate significant relation between SDL and satisfaction of basic psychological needs.

38. The relationships between learning motives, preparation strategies, and strategies during lecture
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Abstract:
This study examined relationships between learning motives and strategies used in preparation and lecture in English learning as a second language. At first, we conducted the pilot study to develop the questionnaire about strategies during preparation and lecture. As the result, we identified 4 factors for strategies during preparation via factor analysis: “looking up in a dictionary (dictionary strategy)”, “conjecturing the meanings of words (conjecturing strategy)”, “reviewing previous texts (reviewing strategy)”, and “help seeking”. We also identified 3 factors for strategies during lecture: “grasping the main points of the lecture (grasping strategy)”, “note-taking”, and “passive listening”. In the main study, Japanese high school students (N = 1,148) completed the questionnaire that was composed of items about learning motives and strategies used in preparation and lecture. Factor analysis revealed 2 factors for learning motives in English learning; “intrinsic motives” and “extrinsic motives”. Path analysis revealed the relationships between learning motives and strategies used both in preparation and lecture. “Intrinsic motives” related positively to “dictionary strategy”, “conjecturing strategy”, and “grasping strategy”. Path analysis also revealed the relationships between preparation strategies and strategies during lecture. “Dictionary strategy” and “conjecturing strategy” related positively to “grasping strategy”, and “conjecturing strategy” related negatively to “passive listening”. These results showed that learning motives directly and indirectly affect strategies during lecture, and that preparation strategies mediated relationships between learning motives and strategies during lecture. Thus, these results indicated that teaching preparation strategies as well as intervening to learning motives was useful for fostering effective strategies during lecture.
39. Dynamics of perceived teacher autonomy support and structure: Longitudinal associations with students’ self regulated learning

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Organization: Maarten Vansteenkiste; Luc Goossens; Filip Dochy
Co-authors: Eline Sierens

Abstract:
The important issue of how autonomy support and structure, two necessary ingredients of an optimal teaching style, change across a school year and how their development is related to students’ motivation and learning, has been neglected in teaching research. In a large sample of high-school students (N = 533), we assessed students’ perceptions of their teachers’ behaviour twice with a 6-month interval during one school year. Univariate latent change models revealed that although average levels of perceived teacher autonomy support and structure remain stable, there are substantial individual differences in both the initial level and degree of change of both constructs. Furthermore, multivariate latent change modeling showed that intra-individual changes in autonomy support are positively related to intra-individual changes structure, suggesting that both teaching dimensions are dynamically interrelated. Finally, intra-individual changes in autonomy support and structure were positively related to changes in students’ autonomous motivation for studying, which, in turn, related positively to changes in students’ use of self-regulated learning strategies (i.e. deep-level cognitive and meta-cognitive strategy use). These findings enhance understanding of how autonomy support and structure develop over time and how these changes are dynamically related to student functioning.

40. New and traditional learning environment in pre-vocational secondary education: the effect on motivation and perceived needs

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Co-authors: Cornelis J. de Brabander; Rob Martens; Rien van der Leeden

Abstract:
New forms of learning, based on social constructivism and situated learning, are being introduced in the classroom in the expectation, based on the Self Determination Theory, they satisfy the need for autonomy, competence, and relatedness, and therefore increase students’ motivation. However, the complexity of new learning environments, including the expectation that students self regulate their learning and motivation, can create motivational challenges and have detrimental effects on motivation (Lehtinen et al. 1995). In this study 123 students from a traditional learning environment and 107 students from a new learning environment, all in pre-vocational secondary education, reported on motivation, perceived autonomy, perceived relatedness, and aspects of perceived competence, namely personal and organizational efficacy expectancy. Absenteeism and achievement were also inspected. Multi-level analyses showed that the new learning environment had positive effects on all aspects, although personal efficacy expectancy profits somewhat less. Also, students were absent considerably less often. Effects on achievement were less clear-cut. Students clearly appreciate the new learning environment, but it appears they do not use its full potential. Research into students’ use of self-regulation strategies (Boekaerts & Corno, 2005) in relation to opportunities offered by the learning environment and the effect on students’ motivation is badly needed.
B4: SPORT AND EXERCISE

41. Motivation in physical education and leisure-time physical activity: Testing a self-determination theory trans-contextual model of physical activity and psychological well-being
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Abstract:
The present study tested a Self-Determination Theory (SDT; Deci & Ryan, 2000) trans-contextual model of the relations between motivation in Physical Education (PE), motivation in leisure-time physical activity, actual physical activity, and psychological well-being in general. Participants were 329 upper secondary school students aged 16 – 18. Students’ perceptions of autonomy supportive teachers in PE were expected to be positively associated with students’ psychological needs satisfaction in PE, which was expected to be positively related to autonomous PE participation motivation. In turn, autonomous PE motivation was expected to be positively associated with perceived competence and autonomous motivation for leisure-time physical activity, which both were expected to be positively associated with leisure-time physical activity and psychological well-being in general. A structural equation model supported the hypothesized model.

42. Relationship of autonomy support to need satisfaction and eudaimonic well-being in football and dance
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Co-authors: Isabel Castillo; Inés Tomás; Maria Sol Álvarez; Eleanor Quested; Joan L. Duda

Abstract:
Grounded in Basic Needs Theory (BNT; Ryan & Deci, 2000) we (1) tested the hypothesized associations between adolescent athletes’ and dancers’ perceptions of coach or instructor autonomy support, satisfaction of the needs for competence, autonomy, and relatedness, and eudaimonic well-being; (2) determined whether need satisfaction mediated the relationship of coach/instructor autonomy support to subjective vitality; and (3) explored domain invariance in the hypothesized model. Participants (164 female dancers; M age = 18.46; SD = 3.66; 370 male soccer players; M age = 14.77; SD = 0.72) completed a multi-section questionnaire tapping the targeted variables. Dancers and soccer players had been involved in their activity for 8.66 + 5.32 and 4.34 + 1.14 years respectively. In both domains, structural equation modeling (SEM) revealed that autonomy support positively predicted satisfaction of each of the three basic psychological needs. In turn, fulfilment of competence and autonomy predicted greater subjective vitality. Despite a significant bivariate correlation, satisfaction of the need for relatedness was unrelated to reported subjective vitality. The mediational effects were tested using SEM. Results showed that autonomy and competence totally mediated the path from autonomy support to subjective vitality. Lastly, multi-group SEM analyses revealed that the model was equivalent for dancers and soccer players ($X^2 (143) = 331.00, p < .01, NNFI = .93, CFI = .94, RMSEA = .05 (90% CI = .04-.06)$). Findings suggest the promotion of choice and personal volition and competence in achievement-related physical activities such as sport and dance corresponds to the enhanced eudaimonic well-being of the participants within those activities.
43. “I have to” engage in physical activity
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Co-authors: Cynthia Mathieu

Abstract:
The concept of « musturbation » relates to the obsession of « I have to » and constitutes an irrational belief (Ellis, 1999). These beliefs raise an emotional state filled with anxiety, negative thinking and excessive worrying. This emotional state is very similar to the state found within individuals who are at the introjected motivation level of the self-determination theory presented by Deci and Ryan (1985, 1991). As for individuals who use « musturbation », a person who is at the « introjected motivational » stage will feel obliged to engage in certain activities in order to feel a certain « inner peace ». To our knowledge, researchers have not yet studied the link between the type of motivation and tendency to worry (found in generalized anxiety disorder). This study examines the link between motivation and tendency to worry in individuals who practice sports. 118 individuals have filled out the questionnaires either immediately before or after engaging in a physical activity in a gym. A French version of the Sports Motivation Scale (Brière, Vallerand, Blais, & Pelletier; 1995) and a French version of Meyer and collegues’ (1990) Penn State Worry Questionnaire (Gosselin, Dugas, Ladouceur, Freeston; 2001) were filled-out by participants. Results indicate that having engaged in a physical activity and introjected motivation seem to predict tendency to worry. Sex of participants, duration, frequency or intensity of the physical activity did not predict tendency to worry. These results will be further discussed and implications for clinical and sports psychology will be presented.

44. The role of passion in cheating behavior in sports
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Co-authors: Marc-Andre K. Lafreniere; Robert J. Vallerand;

Abstract:
The Dualistic Model of Passion (Vallerand et al., 2003) distinguishes two types of passion: harmonious (HP) and obsessive passion (OP), which predict adaptive and less adaptive consequences, respectively. HP is characterized by a voluntary engagement towards the loved activity. OP is characterized by an uncontrollable urge to engage into the activity. The aim of the present study was to understand the role of passion on cheating behavior. The first hypothesis was that HP was unrelated to cheating behavior because one who is harmoniously passionate engages in the activity in an authentic way. Cheating is not an option. In OP, people interact with their environment in a defensive way. Defeat is damageable to the self and must be avoided, so cheating is an option. We based the second hypothesis on Tracy and Robins (2007) who studied two facets of pride: Authentic pride (APr) and hubristic pride (HPr). APr was associated with better social interactions that should diminish cheating. HPr was associated to anti-social behavior (Tracy, Cheng et al. 2009) that should promote cheating. We postulated that HP leads to more APr that, in turn, predicts less cheating, while OP leads to more HPr that, in turn, predicts more cheating. Participants were 219 paintball players aged 12 to 52 (M=19.84, SD=7.77). Results of structural equation modeling supported the model. In conclusion, HP led to more APr which led to less cheating. OP led to more HPr which led to more cheating.
45. **Relationships between passion, motivation regulations and well-being in vocational dancers**

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Co-authors: Coral Falcó; Octavio Álvarez; Consell Valencia de l’Esport. Valencia; Verónica Morales; Joan L. Duda; Isabel Balaguer

**Abstract:**
Grounded in the dualistic model of passion (Vallerand et al., 2003), the present study assessed the role of the two types of passion: harmonious (HP) and obsessive (OP) in predicting positive indices of both more hedonic and eudaimonic well-being (satisfaction with life and subjective vitality) over and beyond motivation regulations for dance engagement. Participants (197 full-time Spanish dance students; 33 males and 154 females, M age = 18.65 years; SD = 3.73) were requested to complete a multi-section questionnaire tapping the targeted variables. Dancers had been involved in their activity for 9.33 years (SD = 5.57) and spent 18.16 hours (SD = 5.57) dancing per week. Hierarchical multiple regression analysis were conducted for both satisfaction with life and subjective vitality. In order to determine the extent to which passion contributes to changes in indicators of well being over and beyond types of motivation, four types of motivation (intrinsic motivation, identified regulation, introjected regulation and external regulation) were entered first, followed by the two types of passion (harmonious and obsessive). Results showed that intrinsic motivation (B = .16, p < .05; B = .31, p < .01) and harmonious passion (B = .31, p < .01; B = .39, p < .01) were positive predictors of life satisfaction and subjective vitality, respectively. Introjected regulation (B = -.19, p < .05) negatively predicted life satisfaction. Positive well being in vocational dancers appears to be related to whether more autonomous motivation underlies their participation as well as whether they feel as if they are in control of their passion for dance.

46. **Physical education behavioral regulations: A cluster analysis**

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Co-authors: Chee Keng John Wang

**Abstract:**
An important outcome of the teaching-learning process of physical education (PE) is a physically active student with the intention to be active after graduation (Hein, Müür, & Koka, 2004). Different types of behavioral regulations central to self-determination theory reflect qualitatively different reasons for a chosen behaviour. The purpose of this study is to examine PE behavioral regulations of students and using cluster analysis, determine clusters of students with distinctive motivational profiles. 344 students from three Singapore schools participated in the survey measuring behavioral regulations, perceived autonomy support, enjoyment, effort, intentions, and physical activity (PA). Cluster analysis using PE behavioral regulations as clustering variables, was done to determine distinctive profiles of the students. Four motivational profiles were found. Cluster 3 had the most autonomous profile while Cluster 2 was the opposite. Cluster 1 had moderate scores for all types of behavioral regulations except introjected regulation where it was the highest among all clusters. Cluster 4 had moderate scores on all types of behavioral regulations. An analysis of variance supported that all four clusters differed significantly in perceived autonomy support, effort, enjoyment, intention, and PA. The profile of students in Cluster 1 suggests that high levels of introjected regulation in PE could be detrimental to achieving the important outcome of PE. Strategies adopted in PE that cause students to self-control their behavior out of guilt/shame or to enhance their egos and feelings of self-worth, may have a greater negative impact on the students’ intention to be physically active outside of school.
47. On the role of passion for football in burnout: A longitudinal study
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Abstract:
The purpose of the present research was to test a model on the role of passion for football in athlete burnout. This model posits that because harmonious passion originates from the authentic integrating self, it should facilitate the satisfaction of basic needs, which subsequently prevent the onset of burnout. Conversely, obsession passion originates largely from ego-invested structures within the person, resulting in low need satisfaction, and, in turn, elevated athlete burnout (Vallerand et al., 2006). Using a prospective design, this model was tested with 185 academy football players (m age = 15.5 years). Players completed The Passion Scale (Vallerand et al., 2003), measures of competence, autonomy, and relatedness (Smith et al., 2008), and the Athlete Burnout Questionnaire (Raedeke & Smith, 2001) at two time points during a football season (January and April). The hypothesised model was tested using path analysis, which revealed an excellent fit to the data (Scaled $\chi^2= 20.7$, df = 18, TLI and CFI > .95, RMSEA < .06, SRMR < .08). Specifically, global need satisfaction partially mediated the longitudinal relationship between harmonious passion and all symptoms of burnout. In contrast, obsessive passion was unrelated to global need satisfaction and all symptoms of burnout. The results support previous findings regarding the adaptive nature of harmonious passion, and confirm the preventive nature of harmonious passion for athlete burnout. Furthermore, the findings suggest that the effects of harmonious passion are mediated by global basic needs.

48. Perceived justice and need support of the coach as predictors of team identification and cohesion among elite team athletes
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Co-authors: Filip Boen; Tanja Ceux; Fien Callens; Katrien Fransen; Gert Vande Broek

Abstract:
Based on findings in organizational psychology, the aim of the present study was to investigate the impact of organizational justice and need supportive leadership on the coach-athlete relationship in team sport settings. More specifically, we were interested in their impact on athletes’ team identification and cohesion. Because, both team identification and cohesion are generally established to be predictors of group-oriented behavior and team performance. The experimental group of the cross-sectional questionnaire study consisted of 56 elite female volleyball players (M = 22.33) and 35 elite male handball players (M = 23.59) from the two highest Belgian divisions. The web-based questionnaire contained items about: the perceived justice of the coach, coaches’ need supportive leadership, athletes’ team identification and both task and social cohesion of athletes. Structural Equation Modeling (SEM) was used to analyze the data. In line with our expectations the results showed positive relations between the perceived organizational justice and need support of the coach on the one hand and team identification on the other hand (p < .05). Furthermore, team identification is positively related with athletes’ task (p < .001) and social cohesion (p < .001). These findings clearly indicate the importance of both perceived justice and need support for the coach-athlete relationship in team sport settings.
49. Children’s perspectives of informal play in school and home environment

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Abstract:
The purpose of this pilot study was to have more insight in the preferential play activities of children while not be guided by an adult. Three classes (one 5th and two 6th classes) of a Flemish elementary school were approached. A variety of methods (draw and write exercise, focus group interviews) was used to examine 64 children (38 girls and 26 boys, aged 10-12). The children were asked to draw, write and tell about their experiences, thoughts and feelings during their most famous play moment(s) in a non-organized context at home and school. Results showed that usually children’s best memory of informal play is in the open air, especially in the school context. The most popular category of informal play that was mentioned was physical active play, like running, hide-and-seek, playful fight, .... Also role playing (police, princes, school, doctor, ...) and talking/chilling together are popular among children as most beautiful memory. Aspects that were often mentioned were friendship and having fun together, excitement, becoming tired, imagination, enjoying and showing their competence, relaxed feeling, love for natural elements (at home also animals). At home environment gaming (PC and consoles) is often mentioned as their as best experience. Playing with dolls, trains and table games still exists in the best memory of some children. The young respondents gave advice in order to get more chance to realize their preferable play experiences: less homework, longer/more recess time, more trees, shrubs, grass fields and goals at school, .... The next phase will be a qualitative data gathering among the grant parents of these children I order to check there favorite informal play 50 years ago.

50. Seeing is believing: The use of mental imagery interventions to enhance integrated regulation

Name: Lindsay Duncan
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Co-authors: Craig R. Hall; Philip M. Wilson; Wendy M. Rodgers

Abstract:
Background: Compared to regular exercisers, exercise initiates report less self-determined regulations for exercise involvement. Research has demonstrated that exercise initiates will show an increase in these regulations as they participate and adhere to a structured exercise program. In a 6-week exercise intervention (Duncan et al., 2010) it was found that integrated regulation came close but did not exactly match levels reported by regular exercisers suggesting that integration might be an effective target for interventions. Purpose: The aim of this study was to examine the effects of a mental imagery intervention designed to enhance integrated regulation among female exercise initiates. Methods: The participants (N=58) were healthy female exercise initiates (Mage= 30.34, SD=8.98). Participants were prescribed an 8-week cardiovascular exercise program in which they exercised three times each week and the duration and intensity of exercise sessions were gradually increased. Participants received weekly guided imagery sessions which were administered via audio recording. The control group received nutritional information delivered by audio recording. Motivation was assessed using the Behavioral Regulations in Exercise Questionnaire- version 2 (Markland & Tobin, 2004) with an additional subscale to measure integrated regulation (Wilson et al., 2006). Results: The analysis revealed significant increases in autonomous motivation (i.e, identified, integrated, and intrinsic) for the imagery group compared to the control group at the 4-week assessment period. The change in motivation from baseline to week 4 was most pronounced for integrated regulation. Conclusions: These findings support the utility of imagery interventions for influencing exercise-related cognitions, and more specifically integrated regulation.
51. Teacher–students negotiations and its relation to physical education students’ motivational processes

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Abstract:
Our aim is to present the test of a model of motivation based on self-determination theory (Deci and Ryan, 2002) and which explored, on one hand, the relationships between teacher–students negotiations and the motivational process of students, and on the other, the relationships with three positive consequences: perceived enjoyment, the perception of having learned during the PE class and the intention of practising a leisure-time physical and sporting activity. Cross-sectional data came from 549 secondary school students (317 male, 232 female) who answered a questionnaire including measures of perceived negotiations, satisfaction of needs, motivation, perceived enjoyment, perception of having learned, intention to practise a physical sporting activity outside school. Structural equation analysis showed that the students who perceived integrative negotiation experience higher levels of autonomy and relatedness. Autonomy and competence determined self-determined motivation, which in turn positively predicted the three consequences. The results support self-determination theory and support its applications in the context of physical education.

52. Need satisfaction and motivational regulations in physical education as determinants of enjoyment and leisure-time physical activity

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Abstract:
It is widely recognized that the amount of physical activity among young people are currently below the levels that are thought to be adequate to promote health benefits (Sallis, 2001). In response to this, the Department of Health in Norway (2005) has emphasized the importance of school physical education (PE) in order to foster motivation to be physically active. Grounded in self-determination theory (SDT) (Deci & Ryan, 1991), the purpose of this study was to examine the relationship between important social environmental factors to psychological need satisfaction and motivational consequences such as enjoyment, and intention to be physically active outside of PE class. Participants were 169 male and 192 female Norwegian 10th-graders. Questionnaires were administered assessing perceptions of the motivational climate in PE, student satisfaction of basic psychological needs in PE, motivational self-regulation in PE, enjoyment in PE, and intention to be physically active outside of school. No significant gender differences were found. Regression analysis showed that perceptions of a mastery climate explained significant variance for satisfaction of the need for autonomy, competence and relatedness, which in turn predicted self-determined motivation. Furthermore, amotivation emerged as a significant negative predictor of enjoyment and intentions to be physically active outside of school. Intrinsic motivation positively predicted enjoyment in PE classes. The findings are discussed in light of SDT and call for the promotion of self-determined motivation in PE classes in order to enhance positive experiences and physical activity outside of school.
53. The need for relatedness in elite sport:
Dilemmas and challenges for athletes and coaches
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Abstract:
The context of elite sport is marked by high levels of competitiveness and ongoing demonstration of competence. It is a challenge to fulfil all basic needs in this environment, especially the need for relatedness. Research on the need for relatedness has generally been neglected compared to research on the need for competence and autonomy (Vallerand, 2001). Thus, the focus of this study was to obtain a deeper understanding of the role of relatedness within an elite sport context. Based on five in-depth interviews with former highly elite athletes and coaches, it was revealed that satisfaction of the need for relatedness provides the premises for other important aspects with respect to both performance and well being. One athlete reported that specific incidents and lack of communication within her team resulted in low fulfilment of the need for relatedness. This lack of relatedness satisfaction and negative influence at the contextual level had a “top down effect” (Vallerand, 2001) and affected motivation on both the contextual - and situational level. Prior to her best season, she decided to train outside the National team and instead be with a different team where she felt that her need for relatedness was met. A former national coach revealed that the ability to manage the fine line between what is required for optimal performance and the need to participate in contexts outside sport, had been one of the biggest challenges during his career. He experienced that satisfaction of the need for relatedness in contexts outside sport was essential to maintain motivation and well-being within the elite sport context.

54. Exploring the experience of relatedness in elite para-equestrian sport
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Co-authors: Marit Sørensen

Abstract:
Introduction. According to STD theory a fulfilment of the need for autonomy, competence and relatedness are sources of intrinsically motivated behaviour. Within sport psychology most of the research has been on autonomy and competence, relatively little work has been done on the need for relatedness. In para- riding (riding for individuals with a disability) the relationship between rider and horse is particularly demanding, because of the necessity to use unconventional means of communication with the horse. The results from a quantitative survey among para-equestrians qualified for the Paralympic games in 2008 demonstrated that the relationship with the horse(es) was the main source of motivation for engaging in the sport. Therefore we wanted to explore this relationship more in depth. Aim of study. The purpose of the study was to explore to what extent, and in what ways the need for relatedness is satisfied through para-equestrian sport. Methods. Participants were athletes that participated in the European Championship in Para-Equestrian riding in 2009 (N=5). Data were collected by in depth interviews, taped and transcribed. Analyses were based in a grounded theory approach. Results. Relatedness was satisfied by several features in the sport. The main agent was the horse, which served as a sensitive partner that can “read minds”, communicates and understand the rider, an intelligent creature that also function as a practical compensation for the disability and thereby enhances the relatedness with the able-bodied world.
55. Process of athlete burnout: Influence of coach style, psychological needs, motivation, vitality and intentions to dropout

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Abstract:
Introduction: This study - based on the Self Determination Theory (Deci & Ryan, 2002) - examine the impact of perceived coach style, need satisfaction, self-determined motivation, vitality and intention to dropout on athlete burnout (Raedeke, 1997) in young elite handball players. A theoretical model was proposed to analyse these relationships. According with this model, we postulated that a perceived controlling coach, lead to lower need satisfaction, which lead to lower self-determined motivation which lead to negatives consequences, such as lower vitality, higher intentions to dropout, and burnout. Method: A sample of 309 handball players (15.4 ± .9 years) completed a questionnaire, measuring: perceived coach style, psychological need, sport motivation, vitality, and future sport intentions at T1 (November 2008); and athlete burnout five months later (T2 April 2009). Results: A structural equation model (χ2/df = 1.83, RMSEA = .05, CFI = .96, NFI = .92) revealed that a player perceiving a controlling coach feel less competent, autonomous and related to others. He also had lower self-determination which leads him to feel lower vitality and higher intention to dropout. Lower vitality is linked to higher feelings of reduced accomplishment; higher intentions to dropout are linked to higher sport devaluation. We also found that a player with lower self-determination had higher exhaustion. And finally, a player with lower feeling of competence had a reduced sense of accomplishment. References: Raedeke, T. D. (1997). Is athlete burnout more than just stress? A sport commitment perspective. Journal of Sport and Exercise Psychology, 19, 396-417.

56. The dual model of passion, athlete burnout and engagement in elite junior sport

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Abstract:
Objectives: While the majority of junior athletes develop a positive and healthy engagement for their chosen sport, a small but significant number experience the damaging symptoms of athlete burnout (Gould & Dieffenbach, 2002). Recently, the occurrence of engagement and burnout in sport has begun to be explained in the context of self determination theory (SDT) (e.g. Cresswell & Eklund, 2004; 2005a; 2005b; 2005c; Lonsdale, 2006; Lonsdale, Hodge & Rose, 2009). The dual model of passion (Vallerand et al., 2003) sits within SDT at the motivational regulation level, with harmonious passion reflecting intrinsic motivation and obsessive passion synonymous with more external regulation. Intrinsic and extrinsic forms of regulation have been associated with adaptive and maladaptive psychological outcomes respectively (Ryan & Deci, 2000). Therefore, the present study aimed to investigate whether harmonious and obsessive passion were associated with contrasting patterns of athlete burnout and athlete engagement. Design: A non-experimental design was used in the present study. Method: 156 elite junior athletes (M age = 15.15 yrs, SD = 1.9 yrs) completed measures of the dual model of passion (Vallerand et al., 2003), athlete burnout (Raedeke & Smith, 2001), and athlete engagement (Lonsdale, Hodge & Jackson, 2007). Results: Harmonious passion was positively associated with characteristics of athlete engagement with variance ranging from 17%-24%. Symptoms of burnout were negatively related to harmonious passion with variance ranging from 8%-22%. No significant associations were found for obsessive passion in relation to athlete burnout or athlete engagement. Conclusions: The findings supported the notion of harmonious passion as a relatively intrinsic form of motivational regulation, which is positively associated with junior athletes’ engagement in sport. In contrast, the role of obsessive passion appeared negligible in the case of junior athlete burnout, and engagement. This suggested a mixed motivational footprint of obsessive passion.
57. Autonomy support, basic needs satisfaction, motivation regulation, and well-being among elite level ballet dancers in Russian speaking countries

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Abstract:
The aims of the present study were to adapt and investigate the validity and reliability of scales measuring Self-Determination Theory (SDT) within Belarusian and Russian elite level dance students and professional ballet dancers. Furthermore, differences and relationships were also examined in variables under investigation. One hundred sixteen ballet dancers aged between 12 and 49 (27 males, 60 females) participated in the study. The measures were: Behaviour Regulation in Sport Questionnaire, Athlete Burnout Questionnaire, General Self-Subscale of the SDQ-II, Brief measure of Positive and Negative Affect, Self-reported physical symptoms, Health Care Climate Questionnaire, Internal Perceived Locus of Control aspect of autonomy, Dancer perception of dance engagement, Acceptance subscale for the need of Relatedness Scale, Competence Subscale of the Intrinsic Motivation Inventory. Furthermore, all the concepts of the SDT (Deci & Ryan, 1985, 1999, 2000) were measured. The results revealed acceptable construct validity (using EFA) and reliability of the scales in the Russian language. In sum, the students perceived more autonomy support than the employed dancers; they had a better level of satisfaction of autonomy than Russian professionals and exhibited significantly higher levels of both intrinsic and controlled motivation than professionals. External regulation was higher in males, but satisfaction of the need for relatedness; identified regulation and self-esteem were higher among female dancers. Correlations were studied separately in students and professionals. They were meaningful and supported SDT hypothesis. The results of the study having shed some light on the SDT in ballet dancing settings in Russian speaking countries.

58. Who chokes under pressure? An investigation of the role that motivation plays in performance under pressure in skilled athletes.

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Co-authors: Luc Pelletier; Nathalie Ricard

Abstract:
Choking under pressure is a well known phenomenon. The self-determination theory (SDT) can be used to better understand how different sources of motivation can influence performance under pressure and can provide a theoretical framework to the study of choking under pressure. Using SDT, the purpose of the following studies was to identify dispositional and situational factors that affect performance under pressure. Study 1 consisted of a field study with 34 swimmers competing at the Canadian Olympic Trials. Significant relationships between sport motivation and performance were found whereby autonomous sport motivation was negatively associated with performance decrements in participants’ most important events. Study 2 was developed to explore quantitative and qualitative situational differences between perceived best and worst performances of 40 varsity athletes using a within-participant design. Qualitative analyses yielded different themes subsumed under larger categories related to SDT. In line with SDT, in descriptions of their best performances, participants reported focusing on the task itself, being less distracted, and simply enjoying what they were doing. In contrast, participants’ emphases were on being distracted by their environment/others, too much/not enough motivation, and lacking confidence/increased anxiety in descriptions of their worst performances. Findings extend the conceptualization of choking under pressure and provide support for the use of SDT as a framework to better understand dispositional characteristic in the study of performance under pressure. Applications and implications will be discussed.
59. Exergaming: A motivational tool to promote physical activity
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Co-authors: Jonathan Sykes

Abstract:
Healthcare professionals view exergame technologies as an alternative tool in promoting physical activity and improving health statistics. Exergaming is referred to as the range of videogames that require physical exertion in order to play the game. There is a growing body of work addressing the health benefits of exergaming (WVU, 2006; Hoysniemi, 2006; Lanningham-Foster et al, 2006; Graves, 2007; Yang and Foley, 2008; Thin, 2008), however, there is limited knowledge in the area of player experience in exergaming. In order to offer players a compelling experience, we must first understand why people play exergames. This study outlines the motivational factors that encourage people to play exergames following the Self-Determination Theory by Ryan & Deci (2000). Results indicated intrinsic motivation is the most important component in the exergaming practice. ‘Fun’ and ‘enjoyment’ were the main motivating factors followed by ‘sense of exercise’ and ‘better mood after session’, which are related to ‘Identified Regulation’. The three psychological needs are satisfied in exergaming. Factors that motivate people to exergame are: the will to play and easy access to technology (autonomy), strong perception of competition regardless of previous game experience (competence), and social activity during gameplay (relatedness). Results are described and findings are discussed.

60. Exercise behavioral regulations mediation of the relationship between exercise and subjective well-being
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Abstract:
Regular exercise is consistently associated with improved subjective well-being (SWB). But are these psychological benefits similar in individuals with different exercise motivations? We analyzed the association between motivational constructs from Self-Determination Theory (SDT) and SWB, adjusting for weekly exercise participation. Subjects were a convenient sample of 474 subjects, recruited in university or health club settings (Age=29.11±10.51 y; 331 women). Weekly exercise frequency was 2.20±1.89 times/week. Self-report questionnaires were used to collect: a) exercise level (assessed with one single item); b) Subjective well-being constructs (i.e., self-esteem, positive emotions and life satisfaction); and c) exercise motivation (BREQ-2: Markland & Tobin, 2004). Multiple mediation analysis followed Preacher and Hayes’s criteria (2007). Our priori hypothesis concerning the self-determined behavior regulations positively affecting the associations among exercise and psychological well-being outcomes was confirmed, whilst the suppressor role of the nonself-determined behavior regulations was not supported by the analysis. Results show intrinsic motivation is associated with SWB, independently of exercise frequency. Thus, they support SDT assertions regarding the importance of self-regulated motivation as nurturing more positive consequences in the physical and mental health domain. Assuring that people take on physical activity that they can self-regulate in an autonomous fashion may be a key factor for psychological well-being.
B5: ORGANIZATIONS AND WORK

61. Determined to regulate: Self-regulation and self-determination in sales
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Co-authors: Claudia Carmona; Luisa F. Gutiérrez; Sandra M. Llanos; Silvio Borrero

Abstract:
Motivating salespeople is a commonplace preoccupation in market-oriented organizations: in highly competitive business environments, fostering superior performance of a sales force is no longer a source of advantage but merely a minimum standard to assure survival. As practicing managers, we explore the challenge of dealing with diverse salespeople and varying motivational orientations from a practitioners’ perspective. To do this, we set out to investigate how self-regulation and self-determination theories can be applied in combination in a field context. Preliminary observations suggest that some salespeople dwell positively with few—if any—directive or controlling measures, somehow managing to keep high personal standards of performance by their own volition, whereas others seem to perform well only when their superiors run a tight ship. That is, some individuals seem naturally inclined to self-regulate their behavior while others lean towards self-determined actions. Diverging from previous research that tends to favor either self-regulation or self-determination as a motivational framework, we contend that it is an appropriate match between motivational orientation and directive style—more or less controlling—which will result in optimal performance. We test this assertion using a convenience sample of 24 sales representatives from three different Colombian firms, from the banking, pharmaceutical, and stationery industries. We conduct a qualitative appraisal of their personal motivational orientations, contrasting it in each case with the direction style applied and corresponding levels of performance. In the poster we describe the methodology used, discuss results, offer potential contributions to theory and practice, and suggest future research venues.

62. Motivation Entrepreneurship Scale (MES):
A scale to evaluate motivation for entrepreneurship
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Abstract:
Entrepreneurship is considered one of the best strategies to foster new jobs, small businesses, opportunities and innovation in European countries, such as declared in Green paper on Entrepreneurship (2003). In fact, in this document, European Commission underlined the importance of entrepreneurship, considered as a mental state and a process allowing economic development and growth. In entrepreneurial choice a key role is played by entrepreneurial intention (Bird, 1988, 1992; Shapero & Sokol, 1982), in fact, intention determines behavior and it seems to generate beliefs and attitudes (Fishbein & Ajzen, 1975). Bird (1998, 1992) affirms that intention is created from the interaction between personal (personality, experiences, motivation and abilities) and contextual (social, political and economic) features. Previous researches (Battistelli, 2001, 2003; Odoardi, 2003, 2005; Battistelli, Odoardi and Sanchez, 2006) have found that entrepreneurial intention among youth is influenced by the combination of different factors such as opinions, motivations and personality. The aim of this study is to analyze motivations utilizing Self Determination Theory (SDT) to better understand regulation process influencing entrepreneurial intention. We modified an instrument created to investigate motivation at work (Gagnè et al., 2009) in order to study motivation for entrepreneurship: Motivation Entrepreneurship Scale (MES) (Battistelli, Uras, Odoardi, Gagnè, 2009). We created an English and an Italian version of MES in order to administer it to both Danish and Italian academic students. Besides motivations, we investigated also intentions, beliefs and proactive personality. We are still administering MES and we are going to collect about 300 questionnaires.
63. The dualistic model of passion: Relations to engagement, autonomous, and controlled motivation
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Abstract:
The concept of passion has gained some momentum in recent positive organizational psychology research. The theoretical assumptions and background of passion as a construct place it right in the middle of the discussion on the conceptual distinctiveness with the similar psychological state of work engagement. In this poster we present how engagement may serve as consequence of passion and how they both relate to autonomous and controlled motivation. Using the 9 item UWES, the Passion Scale, and the 18 item WEIMS, a heterogeneous sample of 279 Norwegian workers participated in this study. Multivariate regression analyses were applied to investigate both linear and mediating relationships between the different constructs. Limitations and practical implications from this study are discussed along with suggestions for further research.

64. Autonomy support and organizational climate: A motivational basis of performance and well-being in volunteers of Public Assistance Association
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Co-authors: Rita Galasso; Krzysztof Szadejko

Abstract:
Purpose of study. This study examined the relation among perceptions of leader autonomy support, organizational climate and motivation in volunteers of the Public Assistance Association. It was hypothesized that leader autonomy support and organizational issues of the Association could be important factors in motivation of volunteers. Method. Participants. 305 volunteers of the Public Assistance Association in Parma (Italy), completed a questionnaire anonymously. The age of patients ranged from 19 to 70 years, with an average of 44 years. 59 % were male and 41% were female. Questionnaires. Perception of autonomy support was assessed with the Work Climate Questionnaire (WCQ) developed by Baard, Deci and Ryan (2004). Organizational climate of the Association was assessed with the Organizational Climate Inventory (OCI), developed by Szadejko and Galasso in 2009. Burnout was assessed with the Maslach Burnout Inventory (MBI) developed by Maslach (1994). Mindfulness was measured with the Mindfulness Attention Awareness Scale (MAAS) developed by Brown and Ryan (2003). The WCQ, OCI and MAAS all employed 5-point Likert scale, the MBI employed 6-point Likert scale. Results. The results showed that there were positive correlations among Autonomy support, Organizational climate and Motivation of volunteers in public assistance services. The negative correlations were found among Organizational climate, Burnout and Mindfulness. We constructed a Structural Equation Model to test the key hypothesis. The model was tested using maximum likelihood. The key finding was that leader autonomy support and good organizational climate were a strong predictors of volunteers’ general satisfaction and intrinsic motivation in public service.
65. Unemployed job search behaviour and well-being

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Abstract:
The findings of previous research show that unemployed individuals had lower psychological and physical well-being than did their employed counterparts (McKee-Ryan, Song, Wanberg & Kinicki, 2005), and had a decrease of satisfaction and happiness (Clark & Oswald, 1994; Winkelmann & Winkelmann, 1988; Böckerman & Ilmakunnas, 2006). The aim of this study is to understand the relations of Job Search Self-efficacy (JSS-E), and Autonomous Motivation (AM; Deci & Ryan, 2000) as determinants of Job Search Behaviour (JSB) and Job Search Outcome (JSO) in unemployed people. The JSB are “specific behaviours through which effort and time are expended to acquire information about labour market alternatives” (Bretz, Boudreau & Judge, 1994). Also the relations of AM and JSS-E on optimism and satisfaction are inquired. Data were collected on the Job placement officer at Public/Local Government Jobcentre of the Friuli Venezia Giulia Region: 258 constituted the final sample. Multiple regression studies were carried out with the stepwise method and highlighted that perceived financial hardship, age and gender were positive predictors of the JSB. We conducted a multiple regression also to test the effects of JSB on the independent variables like JSO, AM and JSS-E. An important result is the relation with JSB and JSO: the more an unemployed person searches for work the better are the chances of re-employment. As hypothesized, JSB was positively predicted by JSS-E and AM. In addition, introjected regulation (IR) predicted JSB as well. JSS-E predicted satisfaction and optimism and also AM positively predicted these two variables.

66. Part-time working nurses’ motives to search and not-to-search for a full-time position: Examining work climate factors and job-incentives as antecedents and advantages of part-time work and job application intensity as consequences

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Abstract:
Because of the high prevalence of part-time work among nurses in Norway, several health and labour organizations have called for research how to stimulate full-time employment. Guided by Self-Determination Theory (SDT; Deci & Ryan, 2000), we examined part-time working nurses’ (N = 463) motivation for searching and not searching for a full-time job. In line with SDT, autonomous motivation to search was found to be positively related to job search intensity whereas autonomous motivation not-to-search was negatively related to job search intensity and positively related to advantages from part-time work, after controlling for various extrinsic incentives (e.g., desire for a higher income, better kindergarten offers, and more nurses at work) which were unrelated to job search application. Finally, experienced managerial autonomy support toward part-time work, negative feedback from colleagues regarding part-time work, and greater involvement in work-time planning was established as important contextual antecedents of part-time nurses’ autonomous and controlled motives to search and not to search.
67. Perfectionism and motivation for work: Predicting burnout and engagement
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Co-authors: Joachim Stoeber, University of Kent

Abstract:
Burnout, caused by chronic and severe stress, is a psychological syndrome characterized by exhaustion, cynicism, and inefficacy (Schaufeli, Leiter, Maslach, & Jackson, 1996). Burnout has an array of negative consequences for employees, organizations, and customers. The opposite of burnout is engagement, “a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002, p. 74). The aim of the present research was to explore how individual differences in employees’ personality styles could predict burnout and engagement. A sample of adults in full-time employment (N = 97) completed measures of perfectionism, motivation for work, burnout, and engagement. Self-oriented perfectionism (i.e., beliefs that one should be perfect) was associated with lower burnout and controlled motivation, and higher engagement and autonomous motivation; socially prescribed perfectionism (i.e., beliefs that others want one to be perfect) showed the opposite pattern. Moreover, autonomous motivation was associated with lower burnout and higher engagement, whereas controlled motivation showed the opposite pattern. Employers and occupational health workers should screen for perfectionism and motivation for work to help identify which employees are at high risk of burnout.

68. The mediation role of motivation in the relation among supervisor support, resistance to change and innovative work behavior, according to the perspective of SDT
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Co-authors: Prof. Marylène Gagné; Ph.D Gabriele Colaianni

Abstract:
In studies on innovation a number of individual and contextual variables that contribute to innovative behaviour have been identified. However, some aspects regarding the relation between these antecedents and innovative work behaviour (IWB) deserve more attention. One of these is the different influence that antecedents exert on the different phases of IWB. In fact, IWB is a complex behavioral process consisting of three main tasks, idea generation, idea promotion and idea realization, and these phases present different characteristics. The second aspect is the study of the psychological processes through which dispositional and organizational antecedents influence the IWB. The purpose of this study is to contribute to an empirical understanding of the relationship between work motivation, resistance to change, supervisor support and IWB in the perspective of Self-Determination Theory (SDT). Particularly, we proposed that the relationship between antecedents and IWB is mediated by autonomous motivation. Results confirmed the crucial role of autonomous motivation in mediating the effects of the antecedents considered on IWB and for all the three phases of IWB. Results also partially supported the hypothesis that the degree of influence of the antecedents on IWB depends on the phase considered. Finally, two other results were achieved: the usefulness to apply SDT in research on innovation was confirmed; the importance of study the resistance to change as a dispositional individual and multifactor construct in the study of innovation.
69. Job design and work effort: The mediating role of basic need satisfaction and autonomous motivation  
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Abstract:  
Both in work psychology (e.g. Demerouti and colleagues’ job demands-resources model) and strategic HRM (Schuler and Jackson, 1995) focus is put on the effects of job design. This aligns with positive psychology’s current attention for promoting favorable attitudes and behavior through the way jobs are designed and perceived by employees (Morgeson & Campion, 2003). We tested a model combining both frameworks and focus on the underlying processes through which they exert influence on employees’ work effort. We use insights from SDT to explain these relationships. Key hypotheses of the study are: Besides the direct links, we hypothesize that the influence of job characteristics (work pressure, skill utilization, and impact awareness) on work effort runs via the sequence of basic need satisfaction and autonomous motivation. Data were collected in 12 service organizations operating in Belgium among 660 employees. Preliminary SEM analyses confirm the partial mediation of need satisfaction in the relationship between the job characteristics and autonomous motivation. Additionally, in favor of JDR’s activation hypothesis, we found confirmation for a joint effect of work pressure and skill utilization. Finally, autonomous motivation partially mediates the relationship between autonomous motivation and work effort. Besides general job characteristics, this study emphasizes the role of a new, strategically linked concept (impact awareness), on a rarely studied behavioral outcome (work effort), and confirms the role of basic need satisfaction as an intervening mechanism. We carefully conclude that jobs can be designed to increase the quality of employees’ work motivation and thereby the effort they display.

70. Self-determination as a moderator of identity-based influence processes in leadership dyads  
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Abstract:  
Influencing subordinates is a central function of leadership. Therefore it is interesting for researchers and practitioners alike to understand the processes which mediate influence in leadership dyads. Research on leader categorization shows that subordinates’ openness towards leader influence depends on the degree to which leaders match their subordinates’ cognitive image of an ideal leader. We link this follower-centric perspective on leadership with identity-based approaches to leadership. Specifically, we propose that subordinates’ relational identity plays an important role in mediating influence processes in leadership dyads. In two field studies (N1 = 496 and N2 = 700) we show that the relation between leader categorization and subordinates’ openness towards leadership is partially mediated by subordinates’ personal identification with their leader. Moreover, in a third study (N3 = 645) we integrate the notion of self-determination and show that this indirect effect via identification is stronger the more subordinates’ feel self-determined in the relation to their leader. Theoretical and practical implications of this moderated mediation model are discussed.
71. Relations between motivation, stress and health amongst small business leaders in Norway

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Co-authors: Hallgeir Halvari

Abstract:
Very little previous research focuses on Small Business Leaders (SBL) as a group. As many as 68% of small businesses in Norway do not survive the first 5 years. SBL work many hours and have a large responsibility. Good health is of the utmost importance, and finding motivational factors that may help SBL endure their work is significant. The present study tested a Self-Determination Theory (SDT) process model of stress and subjective health among 421 SBL. SBL perceptions of autonomy supportive job contexts/networks, and their intrinsic goal contents, autonomous locus of causality, and perceived work competence were all expected to be positively associated with relative autonomous work motivation. In turn, autonomous work motivation was expected to be negatively linked to job-stress and positively related to subjective health. Job-stress was expected to mediate the motivation – health relation. Structural equation modeling using PLS supported the SDT perspective as applied to SBL. The study points to several important practical implications that are discussed. Among others, it might be possible to “kill myths” supporting an attitude that SBL are motivated differently from others, and therefore can endure a working situation others would conceive as hopeless. Financial support, without additional follow-up is probably not beneficial. Goals like money and reputation when starting a business are not helpful. Education before start-up, may have good long-term effects. Educational institutions and the Government should stop using large companies as a “gold” standard. Norway is dependent on small businesses, and it is important to understand the dynamics surrounding SBL.

72. Autonomous motivation, affective commitment and learning orientation as a source of voluntary positive behaviors

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Abstract:
Extra-role behaviors have recently received considerable attention due to their contribution to overall organizational functioning. It becomes important to understand the mechanisms behind the positive behavior and strengthen the link between individual and organization. The literature shows the importance of some psychosocial factors that tend to stimulate the uptake of these volunteers behaviors. The quality of relationships that develop between the individual and the context of work helps to increase self-motivation (Gagné & Deci, 2005), thus the identification with the values and objectives of their work, but also the emotional feeling belonging to its own organization. Thus, individuals tend to give the best of their abilities for the welfare of the organization activating an “approach motivation” state (Elliot, 1999), which determines individual guidance to the continuous growth, self-realization and autonomy necessary to implementation of effective performance. The objective of this research is to test a structural model that can explain how these factors intervene in determining proactive behavior at work (OCBs). The research’s participants are a group of 371 medical assistants of a hospital in the North-East of Italy. Results indicate that learning orientation and affective commitment fully mediate the relationship between autonomous motivation and altruism toward colleagues, while only learning orientation mediates the relationship between autonomous motivation and civic virtue. Not apparent, however, no significant relationship between affective commitment and civic virtue. Conclusions are discussed in terms of practical implications for employees, the organization and the need for future researches.
73. Team-level communication, autonomous motivation at work, and job satisfaction: A multilevel examination of cross-level effects

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Abstract:
To better understand motivation’s impact on job satisfaction, organizational scholars suggest examining contextual variables (Kanfer, Chen & Pritchard, 2008). Gagné & Deci (2005) theorize that supervisor feedback impact autonomous motivation, which in turn predicts job satisfaction. Chen & Kanfer (2006) recommend examining team member interactions’ impact on motivation at work. Consequently, our purpose is to rely on multilevel modeling to test whether team-level communication affects individual-level autonomous motivation and job satisfaction. After insuring that both individual-level variables are significantly related (H1), we test 3 cross-level effects: whether team-level communication is positively related to individual-level autonomous motivation (H2), whether team-level communication is positively related to individual-level job satisfaction after controlling for autonomous motivation (H3), and whether team-level communication moderates the relationship between individual-level motivation and job satisfaction (H4). Thirty teams of lifeguards (N = 122) completed three questionnaires. Between team variance, non-independence, and agreement indices (Bliese, 2000; James, Demaree, & Wolf, 1984) are consistent with multilevel constructs (i.e., ICC(1)=.19, ICC(2)=.58, average rWG(j)=.95). Hierarchical linear modeling (Raudenbush & Bryk, 2002) show support for H1 (G10 = .474, p < 0.001), H2 (G01 = 1.00, p < 0.05), and H3 (G01 = 1.011, p < 0.05), but fail to reach statistical significance regarding H4 (G11 = .317, n.s.). Although there is no cross-level moderation effect, one cannot dismiss the impact of team-level communication on both individual-level predictor and outcome. Future studies should seek to verify if cross-level moderation exist with extrinsic forms of motivation, which are by definition more sensitive to contextual effects.

74. Compulsory job-search in reemployment: Useful or useless?

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Abstract:
Unemployment is a problem for both the unemployed and society. While governments often obligate unemployed people to search for jobs and offer them help to develop their employability (i.e., skills, knowledge and behaviors to find and keep a job), they show much variability in job-search and employability. We propose that the differences in job-search and employability can be explained by the quality of motivation (the ‘why’ of job-search), as stated by Self-Determination Theory. The distinction between autonomous, controlled and amotivation to search might explain why some people develop more employability and stay more committed to finding a job than others. In a two-wave study among 2853 unemployed individuals we tested whether autonomously–as compared to controlled– motivated job-seekers show more job-search intensity and more development of employability. We expected that amotivated unemployed people lack the motivation to persist and therefore show a decrease in job-search intensity and employability. The results confirmed our assumptions. When feeling obligated (controlled) to search for a job, job-seekers developed more job-search skills but grew less committed to work, put less effort in their job-search and were less satisfied with their lives. When autonomously motivated to search for a job, job-seekers developed job-search skills and commitment, and portrayed more job-search activities and life satisfaction. Arguably, they will therefore have a better chance of finding reemployment. Thus, obligating unemployed people to search for a job might give them some job-search skills but can have unfavourable consequences for their overall employability, their job-search activities and their happiness.
75. On being true to the self in a turbulent work environment: How authentic functioning drives work role performance
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Abstract:
This paper builds on the self-determination theory to clarify how ‘being true to the self’ helps to cope with a ‘turbulent work environment’. We hypothesize that the authentic functioning of both followers and leaders satisfies the basic needs underlying autonomous work motivation. The results of a large-scale survey study in the service and knowledge industry indicate that individual differences in the authentic functioning of employees predicts needs satisfaction and that authentic leaders augment this effect in both intercept and slope at the group level o. Between-group and between-subject variance in need satisfaction predict employee engagement and subsequently proficient, adaptive & proactive work role performance.

76. Acting on a vision: A study examining the role of a visionary presentation on individuals’ motivation to support diversity initiatives
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Abstract:
When the case for organizational change is presented as a “vision”, is action to support the change more likely? By definition, visionary presentations describe a desirable future state aligned with personal values. When personal values guide behaviour, the underlying motivation is relatively autonomous. That is, instead of yielding to guilt or social pressure, the values-guided person seeks identity fulfillment and/or genuine enjoyment in pursuing action. To investigate this matter, Human Resources Management students (N=475) were randomly assigned to watch either a visionary presentation about promoting workforce diversity or a “business case” presentation (control condition). The visionary presentation described a prejudice-free, inclusive workplace; the business case covered the legalities of diversity. The key difference between experimental conditions involved the association between a measure of autonomous motivation (Ryan & Connell, 1989) and participants’ reports of intended action. A positive significant association was obtained in the vision condition; no significant association was obtained with the business case. These results are understandable from the conditional nature of autonomous motivation as reported on the measure used here. In both conditions, some people said that if they acted to promote diversity, it would be to promote their personal values. However, it was only in the vision condition in which the connection of diversity-promotion action to personal values was made salient. Thus, a vision can provide the needed push to lead autonomously motivated people to realize that personal efforts to transform the vision into actuality is in coherence with their self identity and hence a worthwhile pursuit.
77. Promoting the psychological health of medical residents: The importance of autonomy support, self-concordance, and self-awareness

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Abstract:
Past studies have revealed important impairments in medical residents’ psychological health, but less is known about the factors that may explain these difficulties (e.g., Cohen & Patten, 2005). The present research relies on self-determination theory (Deci & Ryan, 2000) to propose a model predicting residents’ psychological health. Specifically, self-awareness (Goldman & Kernis, 2002) and tasks self-concordance (Sheldon & Elliot, 1999) are hypothesized to be two different pathways to achieve autonomy that should independently predict psychological health. The model further posits that perceived supervisors’ autonomy support (Black & Deci, 2000; Grolnick & Ryan, 1989) should be an important determinant of both tasks self-concordance and self-awareness. A total of 333 medical residents from Quebec (Canada) completed a questionnaire, which included the Perceived Autonomy Support Scale for employees (Moreau et al., 2007). They also completed tasks self-concordance, self-awareness, and other outcomes measures. Results confirmed the fit of the proposed model. Residents who perceived their supervisors as being more autonomy supportive were more likely to experience their tasks as being self-concordant ($\beta$ = .46, $p < .05$) and to stay in touch with their sense of self ($\beta$ = .31, $p < .05$). In turn, both tasks self-concordance at work ($\beta$ = .28, $p < .05$) and self-awareness ($\beta$ = .45, $p < .05$) predicted greater psychological health. These results were found while controlling for the impact of stressors related to the practice of medicine (e.g., workload) and to life in general (i.e., stressful life events). The theoretical and practical implications are discussed.

78. The influence of the motivational climate on motivational regulation, work performance, and turnover intention

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Abstract:
The purpose of this longitudinal study (T1: N=8282; T2: N=4030) was to investigate the impact of mastery and performance motivational climate at work on motivational regulation (intrinsic motivation, external-, introjected-, identified-, integrated regulation, and amotivation), performance and turnover intention among Norwegian engineers and technologists. While a number of studies have looked at relationships between individual achievement goal orientations and various performance indicators, little research has been done on the motivational climate in the workplace as defined by Achievement Goal Theory and how that may affect employees’ motivation and work outcomes. First, the psychometric properties of the Norwegian version of the Work Extrinsic and Intrinsic Motivation Scale (WEIMS) were determined through an exploratory factor analysis, as well as a confirmatory factor analysis. The results indicated acceptable levels of intercorrelations between the six factors on the self-regulation continuum, thus supporting their discriminant validity. The SEM analysis indicated that the mastery climate was a stronger predictor than the performance climate for self-determined motivational regulation and performance. Perceptions of a mastery climate were also associated with less turnover intention than perceptions of performance climate. The results also indicated that a mastery climate was associated with higher self-determined motivation regulation and work performance over time than a performance climate. Our findings show that a mastery motivational climate has greater adaptive motivational regulation than a performance climate and supports previous findings from academic and sport settings. This extends our knowledge of motivation and performance in the workplace by showing the importance of creating a mastery climate.
79. The moderating impact of general causality orientation on situational motivation when working under active and high-strain conditions

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Abstract:
According to the Job Demands-Control Model (Karasek, 1979), high-strain jobs (i.e., high demands and low control/autonomy) have the worst consequences for employees as these working conditions are draining and de-motivating. In contrast, active jobs (i.e., high demands and high control/autonomy) are considered to be energising and motivating. The aim of the present study was to examine the proximal impact of demand (i.e., workload) and control (i.e., autonomy) on different types of situational motivation, and to examine whether an individual’s causality orientation (i.e., autonomous or controlled) would moderate these effects. First year psychology students (N = 209) participated in a simulated inbox task under varying conditions of demand and control. Causality orientation was measured two weeks prior to the work simulation and baseline situational motivation was measured prior to random assignment to the levels of task demand and control. Moderated regression analyses revealed that high demand decreased intrinsic motivation and increased external regulation. In addition, active conditions (i.e., high demands and high control) increased, whereas high-strain conditions (i.e., high demand and low control) decreased the adoption of integrated self-regulation. For low controlled individuals, active conditions were energizing (baseline levels of intrinsic motivation for the task were maintained). Conversely, high-strain conditions were draining, as they substantially decreased intrinsic motivation for the task from baseline. For high controlled individuals, active conditions were in fact draining, as high control decreased intrinsic motivation. Conversely, high-strain conditions were energizing for these individuals, maintaining enjoyment in the task from baseline. Practical implications will be discussed.

80. Leadership behavior, employee motivation, and organizational performance at Norwegian university colleges

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Abstract:
Self-Determination Theory argues that internalization of organizational values, effective behavior and behavior change requires employees’ motivation for the activity to be autonomous. Autonomously motivated employees with sufficiently perceived competence are expected to perform effectively in organizational settings. A SDT model was tested among 601 employees at twelve Norwegian University Colleges. In the antecedent part of the model we expected that managerial autonomy support and managers’ expectations and values toward employee participation in organizational decision making would be positively associated with intrinsic needs satisfaction at work, which would be positively associated with autonomous work motivation and perceived competence. For the consequence part of the model we suggested that autonomous work motivation and perceived competence would be positively associated with 4 organizational performance indicators, namely participant involvement in organizational decision making, relative intrinsic organizational commitment, job satisfaction and organizational citizenship behavior. Multiple regression analyses supported the expected relations in the SDT model. An a priori SEM-analysis in LISREL indicated that the overall model did fit the data well, and all predicted links in the model were supported, except the association between perceived competence and relative intrinsic organizational commitment. Modification indices suggested to add the positive paths from managers’ support of employee participation in organizational decision making and intrinsic needs satisfaction, respectively, to relative intrinsic organizational commitment. When these 2 links were added, the fit of the structural model improved.
B6: ENVIRONMENT

81. Doing the hard stuff: Influence of self-determined motivation toward the environment on pro-environmental behaviours
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Abstract:
Past research has shown that the level of self-determination is a better predictor of frequency as pro-environmental behaviours (PEB) become more difficult. The current study was able to isolate differences in the level of perceived PEB difficulty for the same individuals within different context. This was achieved by measuring participants (N = 268) frequency and perceived difficulty of the same PEB at two locations (home and school residence). The goal of this study was to determine if (1) motivation levels could account for differences in PEB frequency between easy and difficult behaviours performed in different contexts (home and school residence) and (2) if a sense of personal environmental competency was an antecedent of the relation of motivation and behaviour frequency. Results indicate that for PEBs perceived as difficult, higher self-determined motivation was associated with more frequent PEB. When the behaviour was perceived to be easy, self-determined motivation level had no influence on behaviour frequency. This pattern was consistent across context. Mediation analysis indicated a significant indirect effect of environmental competence on frequency of hard behaviours via motivation. The mediation of easy behaviours was not significant. This study suggests that increasing individuals’ self-determined motivation and sense of environmental competence supports participation of harder environmental behaviours, potentially leading to a larger environmental impact.

82. Motivational profiles: A person-based approach to proenvironmental behaviours
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Abstract:
A new approach has recently arisen within Self-Determination Theory (SDT): the person-oriented approach. Across two studies, we used cluster analysis to create a motivational profile of the pro-environmentalist. For both studies, participants were asked to complete the Motivation Toward the Environment Scale (MTES) and a self-report questionnaire of frequencies of different pro-environmental behaviours (PEBs). In study 1, using a sample of university students from Ottawa (N = 285, mean age = 18.11), the analysis based on the 5 subtypes of motivation (amotivation, external regulation, introjection, identification, integration and intrinsic motivation) revealed 4 clusters: a “High Autonomy / Average Controlled”, an “Average Autonomy / Average Controlled”, a “Low Autonomy / Average Controlled”, and an “Average Autonomy / High Controlled” group. Results indicate that the “High Autonomous / Average Controlled” group reported performing significantly more behaviours than all other groups (p < .05). In study 2, we replicated the clusters on a sample of Canadian adults from the Cornwall area (N = 772, mean age = 49.11) with one small difference: the “Average Autonomy / High Control” in the student group is a “High Autonomy / High Control” group in the adult sample. Regarding PEBs, results suggest that, while highly autonomously motivated people tend to report the highest total PEBs, controlled motivation may have a downside regarding personal behaviours, while having unexpected benefits when PEBs involve a social component.
83. On passion toward the environmental cause:
The phenomenon of green radicalism
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Abstract:
The Dualistic Model of Passion (Vallerand et al., 2003) proposes that individuals can have two distinct types of passion toward an activity: a harmonious passion (HP) or an obsessive passion (OP). HP is characterized by a volitional engagement in an activity that one loves. Conversely, OP leads individuals to experience an incontrollable urge to engage in the beloved activity. Initial research has shown that OP leads to less adaptive outcomes than HP. However, very little research has focused on passion for a cause. In line with the Dualistic Model of Passion, two studies were conducted to test the differential role of passion in the type of behaviors emitted as regards to the environmental cause. Participants were people actively engaged in the environmental cause. In Study 1 (n = 106), results from partial correlations (controlling for the other type of passion) revealed that both HP and OP were positively associated with the judgment of acceptability of mainstream behaviors. However, only OP was positively associated with the endorsement of radical behaviors. Study 2 (n = 123) replicated this pattern of results by looking at the extent to which participants were willing to engage in mainstream and radical behaviors in a hypothetical scenario depicting a real-life situation. By moving from a judgment of acceptability to behavioral intentions, Study 2 provided additional information on the more or less adaptive outcomes of passion. Overall, results underscore the importance of distinguishing HP from OP for an important cause such as that of the environment.
B7: HEALTH CARE

84. Autonomy support and motivation for physical activity in occupational rehabilitation predicts motivation and actual physical activity 4 years after

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Abstract:
Studies of health behavior change after treatment and its maintenance in a long time perspective are called for (Ryan, Patrick, Deci, & Williams, 2008). The present study followed patients 4 years after occupational rehabilitation. We tested the following hypotheses in line with Williams (2002) SDT-model of Patients’ Motivation, Behavior, and Health: (H1) A one month rehabilitation program (start Time 1 / end Time 2) formulated in terms of SDT would increase Physical Activity (PA), physical fitness, autonomous motivation and perceived competence for PA from Time 1 to Time 3 (four years later). (H2) Perceived autonomy support at Time 2 would positively predict autonomous motivation and perceived competence 4 years later, which both, in turn, would be positively linked to 4-year-measures of PA. (H3) Autonomous motivation and perceived competence at Time 2 were expected to positively predict motivation variables and PA after 4 years. The sample consists of 58 participants who attended all 3 data collections. At Time 1, participants had been absent from work due to long-time sicknesses (mainly muscle-skeletal and mental plagues, e.g., anxiety, depression). They voluntarily attended the 1-month occupational rehabilitation clinic program with emphasis on varied daily PA. The results yielded significant increases in PA and physical fitness from Time 1 to Time 3. However, no significant increases in autonomous motivation and perceived competence for PA were revealed, which may be explained by relatively high mean scores at Time 1. Correlation analyses supported hypotheses 2 and 3. In conclusion, the SDT-model was supported with longitudinal data.

85. Can autonomous motivation in one context be transferred into the context of rehabilitation at the time of injury? Testing an alternative application of the Trans-contextual Model

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Abstract:
This study aims to apply the trans-contextual model (Hagger, Chatzisarantis, Culverhouse, & Biddle, 2003), and to investigate the effects of the behavioral regulations in sport on the treatment motivations and the intention to persist in the rehabilitation at the time of injury. Data was collected from 206 professional athletes (mean age = 24.75±4.13) in Sichuan province of China who reported moderate to severe sport injuries over the past two years. They were asked to report their psychological and behavioral reactions towards a hypothetical sport injury incidence in a questionnaire with the following measures: Self-determined motivation in sport (Lonsdale et al., 2008), general causality orientation (Deci & Ryan, 1985a), perceived autonomy supports from team physicians and coaches (Williams et al., 1996), autonomous treatment motivation (Williams et al., 1996), and rehabilitation intention (Ajzen, 2002). Structural Equation Modeling revealed that the proposed model fitted the data very well (CFI=.934; TLI=.924; RMSEA=.046; SRMR=.057). After controlling the effects of autonomy supports from significant others and causality orientations, autonomous (β=.13) and controlled (β=.37) sport motivation respectively associated positively with autonomous and controlled treatment motivation. Furthermore, autonomous treatment motivation formed positive association with intention (β=.77; R²=.51) for undergoing the treatment in the following month. Mediation analysis confirmed that treatment motivations fully mediate the relationship between autonomous sport motivation and treatment intention. In conclusion, the results in line with the trans-contextual model, suggesting that individuals who adopt higher autonomous motivation in sport are more likely to have higher autonomous motivation for the rehabilitation of sport injury.
86. Effects of a motivational interviewing intervention on obese adolescents’ physical activity. A self-determination theory perspective
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Abstract:
Objective: The main aim of this study is to evaluate the effects of a 6 months intervention based on Motivational Interviewing (MI, Miller & Rollnick, 2002) on obese adolescents’ physical activity (PA) practice with Self Determination Theory as a guiding framework.
Procedure: 40 obese adolescents (M age: 12.5) were randomized into 2 groups: 20 in a group receiving a cognitive behavioral weight loss program (3 sessions of 30 minutes by an health care practitioner) and 20 in a group receiving the same program supplemented with 6 MI (telephone sessions of 15 minutes by a PA counselor). Motivation for PA, basic psychological needs satisfaction and PA practice were measured at baseline and 6 months later. Medical staff autonomy, competence and relatedness perceived supports were measured at 3 and 6 months. Results: Repeated measures ANOVAs revealed a significant time x group interaction for integrated regulation (F(1, 37)=4.71, p<.04), identified regulation (F(1, 37)=4.29, p<.05) and for PA practice duration (F(1, 37)=6.27, p<.02) and total energy expenditure (F(1, 37)=6.23, p<.02). Post hoc analyses revealed that adolescents in the MI group increased their scores in these 4 variables whereas scores in the other group remained stable. Moreover, t-tests revealed that the MI group reported higher perceptions of autonomy (p<.05) and relatedness support (p<.05) by medical staff at 6 months. Conclusion: These results suggest that MI is a valuable intervention to increase PA practice in obese population by promoting autonomous motivation for PA.

87. Testing an integrated model of the Theory of Planned Behaviour and Self-Determination Theory for different energy-balance related behaviours and intervention intensities
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Abstract:
Objectives. To test the relations within an integrated model of the Theory of Planned Behaviour and the Self-Determination Theory for exercise and dietary behaviours in a randomised controlled trial. To test whether the relations vary by behaviour or intervention intensity.
Design. Participants (N = 287) completed the baseline measures after randomisation to a ‘usual care’ or an intervention condition. Both conditions included a medical screening. The intervention condition additionally provided participants with access to a website and coaching. Participants could freely determine their intervention intensity. Methods. Participants completed measures of exercise behaviour, fat intake, autonomous motivation, attitudes, self-efficacy and intentions at baseline and after the first intervention year. The frequency of coaching was a measure of intervention intensity. Partial Least Squares (PLS) path modelling was used to test the relations. Results. Changes of autonomous motivation positively predicted changes of self-efficacy (β = .38; p < .05) and intentions towards a healthy diet (β = .38; p < .05). For exercise behaviour, changes of autonomous motivation positively predicted changes of attitudes towards exercising (β = .44; p < .05). The intervention intensity moderated the positive effect of self-efficacy on intentions towards exercising (β = .37; p < .05). Changes in exercise behaviour were positively predicted by changes in intentions (β = .23; p < .05) whereas desired changes in fat intake were positively predicted by the intervention intensity (β = -.18; p < .05). Conclusions. The significant paths supported the proposed theoretical model and confirmed moderation by behaviour and intervention intensity.
88. A practice-nurse addressed intervention to improve autonomy support in type 2 diabetes care. A RCT in primary health care in Denmark

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Abstract:
A huge challenge in type 2-diabetes care is how to motivate patients towards health behaviour changes. In Denmark, the tendency is that nurses in general practice provide a large part of type 2 diabetes care. Observational studies found autonomous motivation and perceived competence associated with improved HbA1c-levels in patients with type 2 diabetes. Hence, research is needed to develop and test interventions that are autonomy supportive. Aim: To develop a training course for practice-nurses in autonomy support in patients with type 2 diabetes, and to evaluate the extent of implementation, and the effect on patient outcomes. Methods: The development of the intervention was based on literature research and expert meetings. The intervention is evaluated in a cluster randomized controlled trial with 40 Danish general practices, where nurses, before enrolment in the study, provided consultations to patients with type 2 diabetes, and about 2500 patients with type 2 diabetes, identified in a Diabetes Database. The patients will be followed 15 months from nurse-participation in the course. Data will be obtained from registers, patient-questionnaires, and nurse-registrations. Outcome-measures are HbA1c, total-cholesterol, perceived autonomy-support (HCCQ), type of motivation (TSRQ), perceived competence (PCS), self-rated health (SF12). Process-indicators are numbers of consultations with the nurse, and use of the working-sheets in the consultations. Results: The intervention will be represented in a model, describing the interventions’ essential components, intended accomplishment, and expected outcomes. A total of 35 nurses from 17 intervention-practices participated in the training course in the autumn of 2009.

89. Should preventive care focus positive values instead of combat self-destructive behaviour?

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Abstract:
This is part of a research project in general practice called 'Early identification of and intervention with alcohol problems in general practice'. The project is targeted at improving the general practitioners ability to identify and address alcohol problems in early stages, in ways tailored for general practice. The project consists of three parts, two of which are relevant to the question above. The first part is about describing, through focus group interviews, general practitioners experiences of and views on addressing alcohol as a possible factor in the patient’s health problems, prior to the patient’s initiative. The last part is about creating and testing both a computer-based ‘eye-opener’ for the physician, and a simple intervention strategy. But even though WHO and other health authorities, based on a body of research, advocates screening and brief intervention in general practice, we now that it is hardly done. It is also ethically questionable whether the physician should address problems the patient hasn't asked for. This may lead to interventions not wanted, and therefore constitute a possible violation of the patient’s integrity. It may also obstruct the possibility of strengthening empowerment and life skills, issues that when addressed properly might improve the patients health, and perhaps reduce harmful drinking. What do we already know about physicians and patients views on addressing alcohol as a possible health problem, prior to the patient’s initiative? What are the perceived gains and possible costs? Are there better ways to strengthen patient’s health than addressing self-destructive behaviour?
90. The role of autonomous motivation and intention for smoking behavior
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Abstract:
According to the World Health Organization (2008) tobacco use is an avoidable cause of death. Autonomy support is seen as an important factor to facilitate health-behavior change. High levels of autonomy support have been found to be associated with greater autonomous motivation. Autonomous motivation in turn is positively associated with active participation and long-term maintenance in behavior-change programs. As common theories of health behavior change consider intentions as an important predictor for health behavior change, behavioral intentions are also included in our theoretical model. The aim of our study was twofold: first, we aimed at testing whether autonomy support is positively associated to autonomous motivation. Second, we were interested whether autonomous motivation and self-efficacy are associated with behavioral intentions and smoking behavior. Adult smokers (N = 324, n = 185 women, mean age = 29.97, SD = 8.92) filled out an online questionnaire on the above mentioned constructs and smoking behavior. Data were analyzed by structural equation modeling. Results showed that autonomy support was significantly positively related to autonomous motivation. Autonomous motivation and self-efficacy in turn, were both significantly related to intentions, and accounted for 36.9% of variance in intentions. Thereby, autonomous motivation emerged as the most important predictor of intentions as self-efficacy had a significant but only small association with intention. Intention in turn, was the only predictor that was significantly positively related to behavior. We conclude that autonomous motivation is highly important for intention to stop or reduce smoking, as well as intention is for smoking behavior.
B8: PSYCHOThERAPY

91. Role of the person in construction of its vital strategy
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Organization: Omsk State University, Omsk, Russia

Abstract:
As a result of long-term work we reveal types of vital strategy which people use during the various age periods. For construction of typology we investigated the vital purposes, valuable orientations, meaning of the life, satisfaction the present and past, controllability a life in general and ability of the person independently to operate own life, time prospect, activity / passivity of the person, self-actualisation. On the basis of application the analysis we have revealed purposeful, hedonistic and fatalistic type of vital strategy at youthful age. In a maturity of the person realise conformist, self-realised and fatalistic type of vital strategy. The revealed types differ on ability to plan the future, satisfactions the various periods of a life, controllability own life. It is empirically proved that optimism, hope, self-control, self-efficiency, perfectionism and social representations about a life act as socially-psychological determinants of vital strategy. Thanks to the dispersive analysis influence of the given characteristics on components of vital strategy, and also feature of optimism, hope, self-control, self-efficiency, perfectionism and social representations about a life at persons with various type of vital strategy is revealed. On materials of researches the monography “Typology of vital strategy” and a number of articles is written.

92. Helping a person to maintain adequate self-relation (а single case study research)
Name: Sergey S. Kurginyan
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Organization: The Institute of Psychology of the Russian Academy of Science, Moacow, Russia

Abstract:
Adequate self-relation, as the subjective feeling of harmonious, successful, and uninhibited (spontaneity) functioning of the self, has been emphasised as one of the central issues of a person’s constructive development and psychological health. As part of an effort to understand the specific character of this type of a person’s self-referencing treatment, the present study assesses the impact of the practitioner’s facility on the self and the self-related process within helping relationships. An aim of the research is to process and develop the reflective practice of helping a person to maintain adequate self-relation with him or herself. A case study research method was assigned to form a single whole of reported helping and supportive work with one participant. This was a useful approach to consider a person’s subjective accounts of experienced selfreferring treatment within ‘encounter’ relationships and to consider themes rather than research data. This study explores some essential qualities of a self-relational process through research interview: (a) the cohesion of internalised ‘selfobjects’ (thoughts, sensations, images, and desires); (b) the constancy of these ‘selfobjects’ to the experience of reorganising the self; and (c) the degree to which the ‘selfobjects’ change in response to changes in circumstances (resilience). Some basic conditions of providing the help and support within the participant’s self-relational process are described in terms of the exploration of practitioner’s attempts to assist these qualities. The findings indicate some basic propositions towards the understanding of a person’s adequate self-relation. The implications of these findings are discussed.
93. Application of the SDT, change preparation, and motivational interviewing triangle in the criminal justice system
Name: Daniel Pelletier
Email: daniel.pelletier@uqo.ca
Organization: University of Quebec in the Outaouais, Gatineau, Canada

Abstract:
Motivational Interviewing (MI) is considered as a useful adjunct to therapy for various addictive behaviours. The aim of MI is to enhance the client’s receptivity to change through a short-term cognitive-behavioural interview process where the client’s verbalisations about ambivalence, change and self-efficacy are systematically repeated, reformulated and amplified. The conceptual framework of MI usually rests on Self-Determination Theory (SDT) and the Transtheoretical Model of Change (TMC). At first glance, MI, SDT and TMC do appear to dovetail one another, but the practical applications of this heterogeneous conceptual/practical triangle are still being investigated. The aim of this exploratory research is to survey the possible application of the MI, SDT and TMC triangle in the field of criminal justice, as seen through clinical caseworkers’ and probation officers’ perspectives. Using a standardized interview schedule, quantitative and qualitative data were gathered on the following topics: 1) motivations for change reported by inmates and parolees; 2) degree of preparation for change; 3) the presence of ambivalence, “change talk” and self-efficacy verbalisations; 4) confidence in workers’ ability to initiate, foster or promote change. The sample included 27 clinical caseworkers and probation officers with a minimum caseload of 10 parolees or inmates. Results indicated that autonomy of motivation, level of change preparedness and key elements of MI are not perceived as useful tools to promote change among inmates and parolees because of the overwhelming effect of the legal constraints to which they are subjected. Implications for the use of MI in criminal justice settings are discussed.

94. A theory-based analysis of coercion in addiction treatment
Name: Karen Urbanoski
Email: KUrbanoski@gmail.com
Organization: Centre for Addiction and Mental Health/University of Toronto, Ontario, Canada
Co-authors: Brian Rush

Abstract:
The use of coercion to induce entry to addiction treatment is controversial and a large body of research has accumulated considering ethical issues, benefits, and repercussions. However, development of evidence-based policy and practices is hampered by limitations of existing literature. Theoretical and empirical work on self-determination suggests that perceptions of coercion have negative implications for motivation and behaviour change; however, these insights have not generally informed research on coerced treatment. This doctoral thesis seeks to further understandings of the effectiveness of coerced addiction treatment through a theory-based, prospective study. The sample includes 276 adults admitted to outpatient counseling for alcohol and drug problems. Participants completed questionnaires on motivation, coercion, and treatment pressures at admission, and were followed up to assess engagement and problem severity after 2 months (follow-up rate = 74.3%). Analysis was guided by Self-Determination Theory. Perceived coercion was associated with greater pressures from legal and informal sources and lower problem severity. Greater coercion was also associated with earlier attrition from treatment. Greater autonomous motivation was associated with higher client confidence in treatment, and lower perceived coercion was associated with greater resolution of substance problems in the weeks following admission. This work contributes empirical evidence to debates over the legitimacy of coerced addiction treatment by reframing concepts in terms of client perspectives and evaluating the impact on treatment processes. Results raise questions about conclusions of the effectiveness of coerced treatment. Further research is needed to evaluate the longer-term implications of coercion and the changing nature of motivation during treatment.
B9: PSYCHOPATHOLOGY

95. Perfectionism and eating disorder symptoms: An examination of the role of basic psychological need satisfaction

Name: Liesbet Boone
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Co-authors: Bart Soenens; Caroline Braet

Abstract:
Perfectionism, and Evaluative Concerns (EC) perfectionism (involving concerns about making mistakes and ruminative doubts about one’s actions) in particular, is considered to play an important role in the development of eating disorder (ED) symptoms. However, only few studies have examined mediating mechanisms through which perfectionism may be associated with ED symptoms. This study uses SDT as a framework to examine such mediating mechanisms and specifically examines the intervening role of processes of need satisfaction. A total of 467 adolescents (M age = 14.7 years) completed questionnaires tapping into perfectionism, eating disorder symptoms, and need satisfaction. EC perfectionism was associated positively with all ED symptoms and negatively with need satisfaction. Personal Standards (PS) perfectionism (which involves the setting of high standards) was less consistently related to these variables and even related positively to need satisfaction after controlling for EC perfectionism. Thus, we only examined need satisfaction as a mediator between EC perfectionism and ED symptoms. It was found that need satisfaction partially mediated the relation between EC perfectionism and bulimia, body dissatisfaction, and eating concerns. Overall, the results suggest that perfectionism thwarts need satisfaction and that thwarted need satisfaction in turn renders people vulnerable to ED symptoms. However, at best, the mediation was partial, leaving open the possibility that perfectionism is quite directly involved in ED pathology. Moreover, need frustration may be more strongly related to psychopathology than a lack of need satisfaction. Thus, future research in this area may use a more explicit assessment of need frustration.

96. Epidemiological study of psychiatric disorders in the medical science student

Name: Malek Mohammad Ghadimi Moghaddam
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Co-authors: Foozieh Hosseini Tabatabaee

Abstract:
Background: The objectives of this research were to conduct an epidemiological study on psychiatric disorders in the medical science students. Material and Methods: The research method was descriptive. The statistical society consisted of the University students and the sample included 2062 (917 female and 1145 male) University students selected through stratified random sampling. They were assessed and the Diagnosis of disorders was based on DSM-IV classification criteria. Results: Prevalence of psychiatric disorders was at 21.54% among the University Students. The prevalence was 22.82% in females and 18.76% in males. Anxiety and mood disorders were the most prevalent psychiatric disorders with 8.34% and 7.52% respectively. The Prevalence of psychotic disorders was 1.41%; euro-cognitive disorders were at 1.12% and dissociative disorders were at 0.68%. In the mood disorders, major depression had the highest rate of diagnosis (3.82%); in anxiety disorders, panic disorder had the highest rate (1.65%). Discussion: Psychiatric disorders are seen to be more prevalent in students using the drugs, students having unsuccessful marriage, deprived students, and fatherless/ motherless students than the other groups. These findings makes the duties of health-care planners and policy-makers more clear in developing practical and operation able programs in the field of mental health care. Key words: epidemiology, prevalence, psychiatric disorders, SADS

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Abstract:
300 normal developing adolescents and 100 adolescents with a diagnosis of learning disorders (LD) and/or Attention Deficit Hyperactivity Disorder (ADHD) were assessed with the Dutch Zinnenaanvullijst Curium (ZALC). The ZALC reflects the level of ego development. Ego-development is a measure of psychosocial maturity. Adolescents with a delayed ego development can experience a mismatch with the expectations of their parents and teachers and have difficulties in relating to their peers. This may lead to behavioral problems and difficulties in social interaction. Little is known on the relation between ego-development and learning difficulties or developmental disorders. This study had two aims. A first aim was to describe ego development in a group of normal developing adolescents. In the non-clinical sample and in line with the literature, an increase in ego development with age and a gender difference in favor of the female subjects, was found. The second aim was to describe the ego development in a clinical group of adolescents with LD and/or ADHD. This clinical group showed an increase in ego maturity with age, although at a slower rate then expected. Delay in ego development was moderate to large, although some individuals with LD and/or ADHD functioned at an age appropriate ego level. In the clinical group the female advantage in ego maturity disappeared. The poster will show data and discussion on the implications of these findings.
SYMPOSIA

SYMPOSIUM 2A
Analyzing the content of clinical SDT-based interventions: What does it take to motivate healthy behaviors and does motivational interviewing also fit the bill?

Chair: Geoffrey Williams

Symposium Abstract:
Several clinical trials have tested self-determinaton theory (SDT) interventions that have promoted internalization of autonomous self-regulation (ASR) and perceived competence (PC) for health behaviors. Motivational Interviewing (MI; Miller & Rollnick, 2002) is a clinical model that until recently was not associated with a theory of human behavior. Several theorists have suggested that MI techniques may be consistent with principles of SDT and, in line with this; some of the clinical interventions studied have been informed by MI techniques and SDT. The presenters within this symposium will define the hallmarks of their SDT based intervention from a theoretical and applied perspective with a goal of better defining what constitutes psychological needs support in different settings (e.g., physical activity and weight loss interventions or dental work). Also, those presenters using MI will present whether MI techniques are expected to support psychological needs. Presenters will address two questions in additon to presenting their studies and interventions: 1. Describe the intervention and explain why/how is it compatible with SDT in its application; 2. Describe to what extent MI is compatible with this approach to supporting psychological needs and promoting internalizaton of ASR and PC for health behavior change. Discussion will center on clearly defining the necessary and sufficient content of an SDT intervention. In addition, we wish to further clarify the potential interface between MI techniques and SDT interventions. Accomplishing these goals may lead to an explicit description of a clinical SDT intervention, and to defining the training needed to provide SDT interventions. Researchers may more easily study the interventions and clinicians may learn to use them to motivate their patients.

Contribution 1
Promoting self-determination for exercise and weight control
Name: Pedro Teixeira
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Co-authors: Marlene Silva; Eliana Carraça; Paulo Vieira; António Palmeira

Abstract:
An intervention for long-term weight control focused on increasing exercise/PA autonomous motivation and behavioral self-regulation will be described. To build the group intervention, aimed at overweight women, principles of SDT were used, namely creating a health care climate and content which was autonomy-supportive, structure-providing, and positive and accepting (i.e., responsive to the three psychological needs described by SDT). Specific intervention strategies and options to address needs support will be described. For each case, we will contrast intervention contents/options with the principles enunciated by Motivational Interviewing, highlighting areas of agreement/overlap and areas of potential divergence. Additionally, results will be presented whereby the motivation-behavior causal path put forth by SDT mediates the intervention effects on 1 to 3-year behavioral outcomes.
Contribution 2
Supporting psychological needs with Motivational Interviewing: Furthering our understanding of how MI may motivate behaviour
Name: Ken Resnicow
Organization: University of Michigan, USA
Email: Kresnic@UMICH.EDU

Abstract:
Principles of SDT will be used to explain how, why, and for whom Motivational Interviewing interventions inculcate behavior change. Using data from several large behavioral trials we will examine how autonomous motivation and client autonomy needs mediate and moderate intervention effects. Specifically, we will present the results of the Body & Soul faith-based intervention to increase fruit and vegetable intake using person-centered peer counseling, and a recent tailored print dietary intervention that used SDT and MI principles to construct motivational messages.

Contribution 3
Motivational predictors of change in oral health
Name: Anne E. Münster Halvari
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Co-authors: Hallgeir Halvari

Abstract:
The present study describes a SDT dental intervention performed by a dental hygienist who: (1) asked patients about their reasons for visiting the clinic, possible dental problems, and goals – listened to and acknowledged their feelings and perspectives, and encouraged their questions and being responsive to them; (2) proposed clear recommendations regarding patient-perceived problems and goals, acknowledging that the patient did not have to accept the changes being recommended; (3) explained in terms of behaviour – health contingencies why recommendations or prescribed activities may be effective in improving dental health; (4) demonstrated correct brushing and flossing behaviours for the patients, allowed them to practice the behaviours, and conveyed confidence in their abilities; (5) encouraged patients to consider the different options and make their own choice about whether or not to endorse them; and (6) minimized controlling evaluation of patients behaviour and dental health during the intervention. This intervention was used in testing the hypothesis that the intervention would increase patients’ perceived competence and autonomous motivation for dental care and would decrease their plaque and gingivitis over a seven month period, compared to standard dental treatment. A SDT process model of dental health was also tested. Results supported the predictions and the SDT process model. Preliminary results from a second randomized controlled trial, using the same intervention as described above, will be used to test the effects of the intervention (relative to standard treatment) on perceived autonomy support and satisfaction of the needs for autonomy, competence, and relatedness in dental treatment, as well as on other SDT-relevant variables.
**SYMPOSIUM 2B**

**Satisfaction versus thwarting of basic psychological needs and the urge, value, or motivation for more satisfaction over the short term and long term**

Chair: Edward L. Deci

**Symposium Abstract:**
Self-determination theory makes a strong claim that there are three fundamental, universal psychological needs, the satisfaction of which is essential for optimal development, functioning, and well-being. This symposium will focus on what happens to people’s valuing of or motivation for attaining future satisfaction of each of those needs when the need is either satisfied or thwarted. For example, will a thwarted need lead to more or to less valuing of the need, more or less tendency to act in accord with the need, and more or less motivation to get the need satisfied? One possibility can be called deficiency/satiation, and the other possibility can be called desensitization/sensitation. The deficiency/satiation perspective suggests that: (1) when a need is thwarted, people experience a deficit, leading them to value and pursue additional future satisfaction of that need; and (2) when the need is satisfied, they experience satiation, leading them to devalue and pursue less additional future satisfaction. In contrast, the desensitization/sensitation position holds that: (1) when a need is thwarted, people become defensively desensitized to the need and thus value and pursue it less; whereas, (2) when the need is satisfied, they are sensitized to it, valuing and pursuing still more of it. These two perspectives, of course, seem to be diametrically opposed, yet there is some research that supports each position. The symposium will review some of that research and discuss possible moderating variables that would allow a reconciliation of those two positions.

**Contribution 1**

**A positive association between person-level relatedness and the incremental value of relating: Desensitization as a consequence of long-term need thwarting?**

Name: Arlen C. Moller
Organization: Northwestern University, USA
Email: a-moller@northwestern.edu
Co-authors: Edward L. Deci; Andrew J. Elliott

**Abstract:**
The concept of basic psychological needs is central to many theories of human motivation, self-determination theory among them. Because the value derived from psychological need satisfaction motivates instrumental behavior, some authors have theorized that short-term deprivation of psychological needs can increase motivation for seeking the valued need satisfaction. Less clear, however, are the motivational consequences of long-term psychological need deprivation. Observational evidence (particularly, in educational and clinical contexts) suggests that those who have been deprived of psychological need satisfaction for long periods seem to accommodate by becoming less motivated to seek out future need satisfaction—the inverse pattern to that observed over the short-term. The observed accommodation pattern may be attributable to at least two mechanisms, including: (1) reduced expectancy, and/or (2) reduced valuation. The principle that long-term need thwarting should reduce expectancy in that context is straightforward and empirically supported. However, the relation between long-term need satisfaction and the incremental value of additional need satisfaction remains poorly understood. In a series of studies, we addressed this question, focusing on the psychological need for relatedness. Three studies found consistent support for a positive association between person-level relatedness and the incremental value of additional relating. Those who reported having experienced more relatedness in their lives, nevertheless reported anticipating and extracting more value from additional or new social encounters; by contrast, those having experienced less relatedness in life reported less incremental value—a pattern consistent with a process of person-level accommodation or desensitization following long-term need thwarting.
Contribution 2
When and how do unmet needs prompt adaptive need-relevant behavior?
Name: Kennon M. Sheldon
Organization: University of Missouri, USA
Email: sheldonk@missouri.edu
Co-authors: Alexander Gunz

Abstract:
Self-determination theory (SDT) posits three evolved psychological needs, for autonomy, competence, and relatedness. Considerable research has established that all three experiences are important for well-being. However, almost no SDT research has examined whether unmet needs have motivational force, an important criteria for establishing that certain experiences are indeed basic needs and motives (Baumeister & Leary, 1995). Do unmet needs tend to stay unmet, as the unsatisfied individual pursues substitute or compensatory gratifications that do not work? This situation would imply a downward spiral in which only a change in the external context can help people to begin satisfying their true needs, and would also make it hard to explain how the needs evolved. Or, do people have the internally generated ability to pursue and meet unmet needs? Three studies (Sheldon & Gunz, Journal of Personality, 2010), using cross-sectional, experimental, and longitudinal methodologies, supply evidence that felt deficits in autonomy, competence, and relatedness arouse corresponding desires to acquire the missing experiences, supporting an adaptive deficiency reduction perspective. However, a positive surfeit of felt need-satisfaction did not predict reduced desires for the corresponding needs, indicating that the SDT needs can not necessarily be satiated. However, more recent experimental studies will also be discussed, which suggest that trying to do something “in order to become happier” (as opposed to doing that thing for its own sake) can backfire. I will discuss implications for evolutionary, homeostatic, and humanistic theories of needs, and will also discuss when and how consciously pursuing need-satisfaction can succeed.

Contribution 3
Impulsive restoration process of the need for autonomy
Name: Luc Pelletier
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Email: social@uottawa.ca
Co-authors: Rémi Radel; Philippe Sarazin

Abstract:
Autonomy has been categorized by self-determination theory as a basic psychological need, essential for individuals’ well-being. However, little is known about the regulation of behavior when the need for autonomy is thwarted. While some findings suggest that autonomy deprivation leads to disaffection of this need, others suggest that deprivation of the need would result in a restoration process. Four experiments investigated which suggestion is correct. Using a controlling situation to manipulate autonomy deprivation, experiment 1 and 2 demonstrated that controlling context generates enhanced accessibility for autonomy related stimuli, and an unconscious tendency to approach such stimuli. Experiment 3 indicated that behavioral strategies to restore autonomy are conditional to the level of perceived competence. Experiment 4 replicated this effect showing that autonomy threat results in attempts to restore autonomy only for participants who feel competent. The discussion will focus on the integration of the autonomy restoration process in self-determination theory, and the implications for research on unconscious processes of motivation.
Contribution 4
Procedural justice as autonomy regulation
Name: Jan-Willem van Prooijen
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Abstract:
In the current presentation, I discuss how basic autonomy needs influence people’s evaluations of the fairness of decision-making procedures. Building on insights derived from self-determination theory and procedural justice theories, I predicted that people’s justice judgments would be most sensitive to variations in decision-making procedures when their individual autonomy needs are threatened. This hypothesis was tested in three studies. Study 1 was an experiment in which participants’ autonomy was measured as individual difference variable. Results revealed that procedural justice judgments were most sensitive to a manipulation that varied whether participants were granted or denied voice in a decision-making process among participants that scored low on the trait autonomy scale. In Study 2, autonomy was manipulated by varying participants’ choice possibilities about the type of task to be conducted. After that, participants were granted or denied voice about a decision that was unrelated to the autonomy manipulation. In correspondence with Study 1, the decision-making procedure exerted a particularly strong influence on justice judgments when participants were denied choice. These findings were extended in an applied study among public employees of the government of a large city in the Netherlands. Findings revealed that perceived procedural justice exerted a relatively strong influence on public employees’ inclinations to report integrity violations of their colleagues (i.e., whistle blowing) when they experienced relatively little autonomy in their work. The same interaction was found on identification and perceived respect. It is concluded that procedural justice is functional to regulate basic autonomy needs.
WORKSHOPS

SDT & MI

Title: Self-Determination Theory and Motivational Interviewing; Brainstorming shared and unshared concepts and interventions

Organizers: Ken Resnicow, Geoffrey Williams, David Markland

Readings:

Parenting

Title: Taking a developmental perspective towards parental autonomy support

Organizers: Wendy Grolnick, Geneviève Mageau, Avi Assor, & Mireille Joussemet

Readings:

Sports

Title: Applying SDT in the sporting context: What we think we know and what we would like to find out

Organizers: Nikos Ntoumanis & Robert Vallerand

Readings:
Relationships

Title: Defining relational competence and differentiating levels of relatedness in close relationships

Organizers: Jennifer La Guardia & Heather Patrick

Readings:

SDT-based interventions in education

Title: From theory to practice: SDT interventions in education

Organizers: Johnmarshall Reeve

Readings:

Cross-cultural issues

Title: Doing cross-cultural research in the self-determination theory tradition

Organizers: Valery Chirkov & Martyn Lynch

Readings:
Mindfulness

**Title:** Mindfulness and Self-Determination Theory: Conceptual foundations and research directions

**Organizers:** Kirk Warren Brown

**Readings:**

Work motivation

**Title:** On the challenges and opportunities of applying SDT in the work setting

**Organizers:** Jacques Forest, Marylène Gagné, & Marc Blais

**Readings:**
SESSIONS

SESSION 6A
Structure and Competence
Chair: Hyungshim Jang

Contribution 1
Providing optimal motivational structure by learning by analogies in physical education classes
Name: Jorge Cottyn
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Email: jorge.cottyn@katho.be
Co-authors: Pieter Tijtgat; Matthieu Lenoir; Maarten Vansteenkiste

Abstract:
Structure is believed to be essential in creating a competence supportive climate, leading to optimal motivation types (Skinner & Belmont, 1993, Journal of Educational Psychology, 85, 571-581). Recently, the role of structure has been demonstrated in physical education setting (Taylor & Ntoumanis, 2007, Journal of Educational Psychology, 99(4), 747-760), but no clear guidelines how to provide structure are available in literature. 22 high school pupils learned to perform a cartwheel in 4 lessons with 30 attempts during each lesson. One group was instructed by an analogy (perform the cartwheel as a wheel) and the other group by a set of 10 explicit rules. After the learning period, participants were asked to report any rule concerning the performance of the cartwheel, and to fill in questionnaires assessing structure, perceived competence and intrinsic motivation. Performance was analyzed by two independent judges after each lesson. Repeated measures ANOVA demonstrated a significant acquisition x group interaction (F4,80 = 2.92, p < .05, $\eta^2 = .13$) revealing that only in the analogy group a significant improvement in performance occurred. Correlation analysis revealed that only the analogy provide optimal structure (r = .52, p<.05), associated with higher perceived competence (r = .44, p< .05), which was significantly correlated with intrinsic motivation (r = .62, p< .01). The results show that using analogies can provide structure in physical education classes, leading to optimal motivational outcome and improving acquisition of gymnastic skills.

Contribution 2
The associations between seventh grade Finnish students’ motivational climate, perceived competence, self-determined motivation, and fundamental movement skills
Name: Timo Jaakkola
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Co-authors: Sami Kalaja; Jarmo Liukkonen; Anthony Watt; Yngvar Ommundsen

Abstract:
A viable way to combine tenets from the achievement goal theory and the self-determination perspective in the study of fundamental movement skills is to make use of the four-stage causal sequence model of motivation. This model holds that contextual factors, such as motivational climates influence the regulation of motivation, mediated by needs satisfaction, one being the need for competence. In turn, the regulation of motivation is hypothesized to impact on cognitive, affective, and behavioural consequences. The aim of the study was to investigate the relationships between motivational climate, perceived competence, self-determined motivation towards physical education (PE), and the fundamental movement skills of Finnish secondary school students by adopting the four-stage causal sequence model of motivation. A sample of 370 seventh-grade PE students (girls N = 189; boys N = 181; mean age = 13.08; S.D. = 0.25) responded a package of questionnaires including task and ego-involving motivational climates, perceived competence, and self-
determined motivation. Additionally, their fundamental movement skills were analysed by Flamingo standing test, leaping test, and figure-8 dribbling test. Structural equation modelling demonstrated results generally consistent with the theoretical tenets of the self-determination and the achievement goal theories by showing that a task-involving motivational climate influenced perceived competence, which in turn affected motivation towards PE. Results also revealed that this motivational sequence was associated with increased balance skill. Additionally, a sequence consisting of task-involving climate – intrinsically regulated motivation, and balance skills was also observed. Subsequently, the results indicated that task-involving motivational climate influenced perceived competence, in turn influencing manipulative and locomotor skills. Finally, an ego-involving climate was found to be a marginally positive predictor of manipulative skills.

**Contribution 3**

**How you say it makes a difference: The motivating role of communicating corrective feedback in an autonomy-supportive way**

Name: Willy Lens  
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Email: Willy.Lens@psy.kuleuven.be  
Co-authors: Athanasios Mouratidis; Maarten Vansteenkiste

**Abstract:**

Although indispensable in everyday practice in sports, corrective feedback (i.e., feedback that coaches provide to their athletes after poor performance or mistakes) may sometimes undermine athletes’ motivation, but not when it is communicated in an autonomous supportive way. We relied on Self-determination theory (SDT; Deci & Ryan, 2000) to test this hypothesis, mainly to investigate to what extent autonomy supporting corrective feedback is associated with athletes’ optimal motivation and well-being. To do so, we conducted a cross-sectional study with 337 (67.1% males) Greek adolescent athletes (mean age M = 15.59; SD = 2.37) from various sports. Aligned with SDT, we found through Structural Equation Modeling (SEM) that next to amount of corrective feedback, autonomous supportive communication style was positively related to autonomous motivation and negatively related to controlled motivation. In turn, autonomous motivation was positively associated with intentions to persist in the future and well-being (positive affect and vitality) and negatively associated with ill-being (negative affect and depression). In contrast, controlled motivation was positively associated with ill-being. SEM analyses further showed that legitimacy perception of the corrective feedback could account for the link between amount and autonomy-supportive style of corrective feedback on the one hand and autonomous and controlled motivation on the other. Results are discussed within the SDT framework.
SESSION 6B
Exercise and PE II
Chair: Joan Duda

Contribution 1
Autonomy support, needs satisfaction, general causal orientation and work engagement in volunteer and paid coaches
Name: Erika Borkoles
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Email: e.borkoles@leedsmet.ac.uk
Co-authors: Louise Purdy; Remco Polman

Abstract:
The present study investigated differences in basic need satisfaction, work climate, general causal orientation and work engagement in volunteer and paid sport coaches. Predictors of work engagement were also explored. Participants were 197 sport coaches (128 male; 69 female) of which 73 were paid and 124 voluntary. All completed an online questionnaire pack consisting of demographic information, coaching background, Work Climate Questionnaire, General Causal Orientation Scale (GCOS), Basic Need Satisfaction at Work Scale (BNS), and The Work Engagement Scale. The MANOVA was significant (P = .01; η2 = .10). Follow-up ANOVA showed significant effects for work climate (P = .01; η2 = .03) and BNS competence scale (P = .05; η2 = .02). Paid coaches reported higher levels of autonomy support at work and competence than the volunteer coaches. Stepwise linear regression was conducted with work engagement as the dependent variable whilst controlling for coach type and autonomy at work. Step 2 (BNS scales) showed a significant increase in explained variance (ΔR2 = .27; P < .001) with BNS Autonomy (β = .20) and BNS Competence (β = .39) contributing significantly to the model. Step 3 (GCOS scales) added an additional 4% variance (P < .001) but only the control scale of the GCOS contributed significantly to the model (β = -.19). Paid coaches experienced a more autonomy supportive environment and reported higher perceived competence than voluntary coaches. Higher levels of work engagement was predicted by being less controlling, more autonomous and competent at work.

Contribution 2
Motivation and exercise dependence: A study based on self-determination theory
Name: David Gonzalez-Cutre
Organization: Universidad de Almería, Spain
Email: dgc692@ual.es
Co-authors: Alvaro Sicilia

Abstract:
So far, little is known about the factors that prevail, converge and perpetuate exercise dependence, making prevention and treatment difficult. The objective of this study was to offer an in-depth explanation of this construct, analyzing its relationships with some motivational factors from the perspective of self-determination theory. The sample consisted of 531 exercisers, aged 16-60 years, who responded to different questionnaires evaluating the perception of motivational climate (task and ego), basic psychological needs (autonomy, competence and relatedness), motivation types (intrinsic motivation, integrated, identified, introjected and external regulation, and amotivation) and exercise dependence. Regression analysis results revealed that ego-involving climate, perceived competence, integrated, introjected and external regulation positively predicted exercise dependence with an explained variance of 37%. Introjected regulation showed the highest prediction power. Mediation analysis indicated that introjected regulation partially mediated the effect of ego-involving climate and perceived competence on exercise dependence; external regulation partially mediated the relationship between ego-involving climate and exercise dependence; and integrated regulation partially mediated the effect of perceived competence on exercise dependence. Results are discussed in relation to the motivational explanation of the exercise dependence phenomenon and the reduction of its prevalence.
Contribution 3  
A prospective study of middle school students’ motives and physical activity  
Name: Alex C. Garn  
Organization: Louisiana State University, USA  
Email: agarn@lsu.edu  
Co-authors: Birgitta Baker; Kerri Lee  

Abstract:  
Middle school years are a time when a significant decline in motivation to be physically active and physical activity behaviors occur, especially for female students. The purpose of this study was to examine the ability of physical activity motives to predict leisure-time physical activity with a sample of middle school students. There were 157 6th and 7th grade students who completed the Motives for Physical Activity Measure – Revised (MPAM-R) at Time 1. Leisure-time physical activity was measured using the Leisure Time Exercise Questionnaire (LTEQ) eight months later at Time 2, when students were in 7th and 8th grade. The LTEQ measures two parameters of physical activity, intensity and frequency. Separate simultaneous regression analyses for males and females revealed the ability of competence motives to predict intensity of physical activity for males and frequency of physical activity for both males and females. These results provide additional support to past retrospective research designs showcasing the positive relationship between competence motives and exercise variables in adult populations (Ryan, Fredericks, Lepes, & Rubio, 1997). Since a considerable proportion of physical activity for middle school students is obtained during physical education classes (McKenzie, 2001), our findings suggest physical education curriculum that emphasizes building physical activity competence (i.e., both actual and perceived) might provide the best opportunity for the facilitation of physical activity with middle school students.
CONTRIBUITION 1
A school reform program based on the concept of internalization
Name: Ofra Feinberg
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Email: feinberg1@bezeqint.net
Co-authors: Avi Assor; Haya Kaplan

Abstract:
We describe a study of a school reform program based mainly on Self Determination Theory's internalization concept. The program places major emphasis on the process of internalization of SDT principles by teachers, and on teachers’ ability to limit violence and enhance caring among students, while at the same time supporting students’ need for autonomy.
The program includes four internalization-promoting components: Learning Basic Concepts of SDT; Evaluation Using SDT Concepts; A Structured and Focused Plan, aimed at attaining the goals chosen by the school: reducing violence and enhancing caring in the school; Supporting Staff Needs in Groups. The program operated for three years in three Israeli elementary schools.
Questionnaires assessing caring and violence in the classrooms, as well as perceived limit setting, autonomy support and controlling behavior by teachers were administered in the first year and towards the end of the third year to students from the intervention group and to students from three matched control schools. Teachers’ internalization of the program’s values and principles was assessed by coding the teachers’ responses to the open-response parts of the teachers’ questionnaire. Results (Nested ANOVAs), showed reduction in students’ violence and increase in the limits set on violence by teachers, as well as reduction in teachers’ controlling behaviors and increase in caring in the classroom. HLM analyses, showed that the changes from year 1 (baseline) to year 3 were significant only for high internalization teachers. The fourth component – Supporting Staff Needs – was experienced by teachers as the program’s most significant aspect.

CONTRIBUITION 2
The promotion of self-determined motivation in German language education
Name: Waldemar Mittag
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Co-authors: Sonja Bieg

Abstract:
Based on Self-Determination Theory, two teaching units for German language education were developed and implemented in regular classes to promote students’ self-determined motivation in three different German school types. The teaching units were evaluated within a treatment-control group design with 20 classes of eight-grade-students. Classes were assigned either to a treatment condition with the two teaching units or to a control condition with usual instruction on the same topics. Self-reports including students’ perceived autonomy support, teachers’ care, students’ affective attitude toward learning and self-determined motivation were collected over three points of measurement (before and after the first teaching unit and after the second teaching unit). In addition, students’ achievement scores were assessed by a pretest, a posttest and a follow-up for both teaching units. In comparison with the control group, the treatment group showed positive effects on teachers’ care, students’ affective attitude toward learning and self-determined motivation, and dependent on the type of school on students’ perceived autonomy support and achievement. The most positive effects were found in high school (Gymnasium), whereas negative effects on students’ achievement were partially found in junior high school (Realschule) and secondary school (Hauptschule). The results are discussed with respect to the differential effects depending on the school type and their implication on program development and implementation.
Contribution 3
The effect of two interventions to improve teachers’ interpersonal style in physical education
Name: Damien Tessier
Organization: University of Grenoble, France
Email: Damien.tessier@ujf-grenoble.fr
Co-authors: Philippe Sarrazin; Nikos Ntoumanis

Abstract:
Although the benefits of autonomy supportive behaviors are now well established in the literature, very few studies have attempted to train teachers to offer a greater autonomy support to their students, in particular in physical education (PE). The aim of this paper is to present the effects of two motivation-based training programs for PE teachers. The first study involved five PE teachers randomly assigned to a control or an autonomy-supportive training group over an 8-week teaching cycle. To assess the effect of the teacher training, their behaviors were observed and rated along 3 categories (i.e., autonomy supportive, neutral and controlling). Results showed that compared to the teachers in the control group, those in the experimental group used an autonomy supportive style with greater frequency. Nevertheless, the effects of the teacher training on students’ engagement and motivation being not assessed, it was not possible to know if the students were receptive to the modifications of their teachers’ style. The second study addressed this limitation. The purpose was to test the effects of a training program for three PE teachers on the aforementioned teachers’ overt behaviors and students’ psychological needs satisfaction, self-determined motivation and engagement in PE. After a baseline period, the teachers attended an informational session on adaptive student motivation and how to support it. Results revealed that from pre- to post-intervention: (1) teachers managed to improve their teaching style, and (2) students were receptive to these changes, as shown by increases in their reported need satisfaction, self-determined motivation and engagement in the class.
SESSION 6D
Structure, antecedents, and outcomes of academic socialization in three different cultures
Chair: Bart Soenens

Contribution 1
Teacher’s conditional regard, autonomy support, and types of student motivation as predictors of students’ academic engagement and achievement
Name: Ahyoung Kim
Organization: Ewha Womans University, South Korea
Email: aykim@ewha.ac.kr
Co-authors: Joo-young Kim

Abstract:
Students’ perceptions of their parents’ conditional regard predicts negative emotional and academic consequences (Roth, Assor, Niemiec, Ryan, & Deci, 2009). Considering the fact that students’ everyday academic activities revolve around their classroom teachers, the perception of their teacher’s attitude and reactions toward students, such as the expression of autonomy support, or positive or negative conditional regard, has substantial influence on the students’ autonomous academic engagement and ultimately leads to either positive or negative achievement outcomes. Furthermore, this influence is mediated by the types of students’ motivation (autonomous vs. controlled). Thus, in the present study, we will test the relations among these variables. We are currently in the process of collecting data from 500 5th graders using a questionnaire consisting of scales that assess students’ perceptions of their teacher’s positive and negative conditional regard, and autonomy supportiveness, along with their controlled and autonomous motivation and autonomous academic engagement. Students’ final grades will also be collected to be served as academic achievement outcomes. It is hypothesized that students’ autonomous motivation will mediate the positive influence of teacher’s autonomy support on academic engagement and achievement, whereas controlled motivation will mediate the negative influence of teacher’s conditional regard toward their students on academic engagement and achievement. To test these hypotheses, structural equation modeling will be adopted to confirm the relationships among variables and the mediating roles of the types of students’ motivation.

Contribution 2
A Turkish adaptation of perceptions of parents scales: Confirmatory and exploratory factor analysis
Name: Ercan Kocayörük
Organization: Çanakkale Onsekiz Mart University, Turkey
Email: kocayoruk@comu.edu.tr
Co-authors: Hasan Arslan

Abstract:
The aim of the present study is to determine how well the identified model of the original version of the Perceptions of Parents Scales (POPS) fits the Turkish adaptation of POPS (POPS-T) and make contribution to framework of Self-Determination Theory from diverse culture. All three sub-scales (Warmth, Autonomy Support and Involvement) consisted of 21 items for mother and father were translated into Turkish prior to administering the study. Two bilingual Turkish scholars independently translated each item and compared their translations to resolve any disagreements. Initially, a Confirmatory Factor Analysis (CFA) was performed on the variance-covariance matrix using Lisrel 8.3. CFA allows determining whether the Turkish version of POPS would yield or construct a similar structure to the original version of POPS. Results of the initial confirmatory factor analyses suggested the original factor structure of the POPS did not fit the data for adolescent’s ratings of mothers and fathers on the measures of warmth, autonomy support and involvement. Exploratory factor analyses revealed a new three-factor structure for POPS with a shortened scale, and
then the second CFA would be carried out to determine whether the new factor structure of POPS-T would fit the data. The second confirmatory factor analyses revealed that the new three-factor model provides acceptable fit. It was concluded that the POPS-T constitutes a useful tool for the assessment of both mother and father attachment in adolescent aged between 14 and 18 years.

Contribution 3
Personal characteristics of parents and teachers as predictors of autonomy supportive behavior
Name: Guy Roth
Organization: Ben-Gurion University of The Negev, Israel
Email: roth@bgu.ac.il

Abstract:
Considerable research has indicated that autonomy supportive socializing context is associated with desirable outcomes for children and students (Deci & Ryan, 2008); however, research exploring antecedents of autonomy support is quite scarce. Grolnick (2003) explored contextual pressures that may predict parents’ autonomy supportive behavior (ASB), whereas Pelletier et al. (2002) explored the effect of contextual pressures on teachers’ ASB. Nevertheless, Landry et al. (2008) is the only study that directly explored a parental characteristic (namely, parental trust in organismic development) that may predict ASB. Thus, research exploring socializing agents’ characteristics that may predict their ASB is limited. The present research consists of four studies exploring three personal characteristics of parents and teachers that may predict ASB: (1) parent’s/teacher’s belief that intrinsic motivation is essential for life-satisfaction and well-being, (2) parent’s/teacher’s trust in children’s intentions and competence, and (3) parents’ unconditional positive regard (UCPR). Three studies were focused on parenting characteristics and behaviors, and one study was focused on teachers. Data were collected from multiple reporters: parents, teachers and children. The main hypotheses were that the personal characteristics of parents and teachers will predict children’s perceptions of ASB, which in turn, will predict children’s positive outcomes such as well-being and intrinsic motivation. The results confirm the hypotheses and provide preliminary support for the assumption that integration (Ryan, 1995) and authenticity (Kernis & Goldman, 2006) of parents and teachers facilitate the three personal characteristics here explored. The possible conceptual associations among the three socializing agent’s personal characteristics will be discussed.
Sunday, MAY 16th: CLOSING DAY (Faculty building)

GENERAL OVERVIEW

8:00-8:30

8:30-10:00
Invited Symposia 3

Symposium 3A: New tests of the continuum structure of human motivation
Chair: Marylène Gagné
Auditorium 2

Martin Hagger
The motivational continuum: Consistency in the literature and developing a measure of integrated regulation from first principles

Yaniv Kanat-Maymon
Approach and avoidance orientations: Testing their relevance to the autonomy continuum

Emanuele Chemoli
Motivation at work: From continuum to cluster

Symposium 3B: Motivation priming and nonconscious processes
Chair: Holley Hodgins
Auditorium 1

Lisa Legault
The automatization of autonomy: How self-determination influences the implicit self-regulation of prejudice

Netta Weinstein
The autonomous personality as a buffer for value-incongruent primes

Remi Radel & Philippe Sarazin
Deepening knowledge on automaticity of motivational orientations

Chantal Levesque-Bristol
On the investigation of primed and chronic motivational orientations

10:00-10:25
Coffee Break
Restaurant

10:25-11:40
Session 7

Session 7A: Autonomy and attachment in close relationships
Chair: Jennifer La Guardia
Auditorium 2

Geneviève Mageau
Broadening the study of infant security of attachment: Maternal autonomy-support in the context of infant exploration
Martin Lynch
The relative contribution of autonomy and attachment security in the willingness to seek support

Christopher P. Niemiec
The importance of supporting autonomy to the development of high-quality relationships in the context of self-disclosure

Session 7B: SDT approaches to understanding and promoting pro-social and pro-environmental behaviors
Chair: Netta Weinstein
Auditorium 4

Jeffrey Jones
Inspiring self-determination and a sense of youth purpose through social action

Andrew K. Przybylski
How prosocial videogame engagement influences psychological need satisfaction and well-being: A self-determination theory based approach

Dave Webb
Self-determination and the prediction of goal oriented energy conservation behavior in Western Australia

Session 7C: Person-centered approaches in an adolescent, elderly, and employer population
Chair: Fred Guay
Auditorium 1

Julien Chanal
Motivational profiles analyses techniques in Self-Determination Theory

Claude Ferrand
Motives for regular physical activity in elderly people: A self-determination theory perspective

Hermina Van Coillie
Workers’ motivational profiles: The quality of motivation matters

Session 7D: Priming and non-conscious processing
Chair: Chantal Levesque-Bristol
Room 1B

James Dimmock
The impact of non-consciously activated motivation on exercise

Alexios Arvanitis
Social comparison’s autonomous and heteronomous aspects

Louisa Pavey
Self-determination and altruism: Priming relatedness needs promotes prosocial motives and behavior

11:40-13:15
LUNCH
Poster Session C
Restaurant
Around Auditorium 2
C1: Goals, values, and aspirations (1-9)  
C2: Internalization and self-regulatory styles (10-19)  
C3: Development and parenting (20-32)  
1st floor  
C4: Education (33-46)  
C5: Sport and exercise (47-59)  
C6: Physical education (60-62)  
C7: Organizations and work (63-71)  
C8: Nonconscious process and priming (72-74)  
C9: Health care (75-80)  
C10: Relationships (81-83)  
2nd floor  
13:15-14:15  
Closing plenary session by Richard Ryan and Edward Deci  
Auditorium 2  
15:00-18:00  
Touristic activities
FOURTH INTERNATIONAL CONFERENCE ON SELF-DETERMINATION THEORY

Sunday, MAY 16th: CLOSING DAY (Faculty building)

GENERAL OVERVIEW

SYMPOSIA

SYMPOSIUM 3A
New tests of the continuum structure of human motivation
Chair: Marylène Gagné

Symposium Abstract:
Self-determination theory (Deci & Ryan, 1985) proposed that different types of motivation fall along a continuum of increasing autonomy. Ryan and Connell (1989) were the first to test this continuum structure, using the quasi-simplex structure hypothesis from Guttmann (1954), where motivational types that are closer together on the continuum should be more highly related to each other than types that are not adjacent. Although many studies evidence this correlational pattern, the definition of a continuum in statistics means a unidimensional structure, one that is not found in most scales based on self-determination theory. Indeed, most research finds that motivation is multidimensional, representing the breadth of regulations proposed in the theory that may differ on more than just level of autonomy. The three presentations tested the continuum structure using more advanced statistical techniques. Hagger, McLachnan and Chatzirarantis examined the factor structure of motivation in the behavioral health literature through a meta-analysis, finding evidence for a multidimensional structure. Kanat-Maymon and Roth argue that most measures of autonomous motivation are approach-oriented, while measures of controlled motivation are avoidance-oriented. Using Smallest Space Analysis, they found evidence for a unidimensional structure of the autonomy continuum. Moreover, external and introjected approach and avoidance did not differ in terms of relative autonomy whereas identified approach found to be relatively more autonomous than identified avoidance. Chemolli used the Partial Credit Model and Cluster Analysis to examine the structure of work motivation. The PCM did not support the unidimensional continuum structure and there was evidence of predictable clusters in the data. The three studies together show that we should be careful when describing the structure of motivation through a continuum as evidence for it is weak.

Contribution 1
The motivational continuum: Consistency in the literature and developing a measure of integrated regulation from first principles
Name: Martin Hagger
Organization: University of Nottingham, UK
Email: martin.hagger@nottingham.ac.uk
Co-authors: Sarah McLachlan; Nikos Chatzisarantis

Abstract:
The motivational continuum is the keystone of organismic integration theory (OIT) and it charts the degree of autonomy and internalization of motivated behaviours ranging from fully autonomous to externally regulated. The continuum has received considerable attention in the literature with many studies examining the continuum using validated self-reported measures of perceived locus of causality originally developed by Ryan and Connell (1989). The continuum has also been revised on numerous occasions to differentiate between types of intrinsic motivation (e.g., accomplishment, to know, experience stimulation) and including other constructs such as integrated regulation and amotivation. The aim of the present investigation is to examine the consistency of the constructs from the motivational continuum across the health-related literature and develop a fully-validated measure of integrated regulation in health behaviour contexts. In Study 1 we report a meta-analysis of 21 studies from the health-related literature that has used the continuum. Findings

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demonstrate that the correlations among the continuum components largely conform to
the Simplex-like structure proposed by Ryan and Connell. In Study 2 we demonstrate
the importance of developing the integrated regulation scales from first principles. Using open-
ended questionnaires, content analysis, expert raters, and exploratory and confirmatory
factor analysis on an initial item pool we develop a four-item integration regulation
measure that captures the essence of the construct and demonstrates construct, predictive,
discriminant, and nomological validity across health two behaviour contexts. Results will
be discussed with respect to the development of the continuum and its use in formative
research to test predictions from OIT.

Contribution 2
Approach and avoidance orientations: Testing their relevance to the autonomy
continuum
Name: Yaniv Kanat-Maymon
Organization: Interdisciplinary Center (IDC) Herzliya, Israel
Email: ymaymon@gmail.com
Co-authors: Guy Roth

Abstract:
According to Self-Determination Theory (Ryan & Deci, 2000) the four types of extrinsic
motivations (external, introjected, identified, and integrated), along with intrinsic regulation,
are expected to occupy different points on a relative autonomy continuum, which ranges from
coercion to autonomy. To obtain empirical support for this expectation, Ryan and Connell
(1989) and Roth, Assor, Kanat-Maymon, & Kaplan (2006) used Guttmann’s (1954) radex
theory to demonstrate a simplex pattern that is reflected in the intercorrelation matrix of
the different behavioral regulations. Additionally, research has devoted attention to another
distinction between motivation categories, namely, approach and avoidance motivations
(Elliott, 2006). The present research aims to explore the relevance of the approach-
avoidance distinction to the autonomy continuum. Most relative autonomy measures define
autonomous motivation as approach oriented and controlled motivation as avoidance
oriented, making any distinction impossible. The present study explores the autonomy
continuum, employing items that correspond to approach and avoidance orientations for
each of the external regulation styles. The autonomy continuum was tested in two studies
focusing on two domains: academics (n=115) and romantic relationships (n=120). Results
of Smallest Space Analysis (SSA; Guttman, 1968) supported the autonomy continuum.
Furthermore, it was found that approach and avoidance items were grouped within each
of the external and introjected facets. Thus, external-approach and introjected-approach
were not different than external-avoidance and introjected-avoidance in terms of relative
autonomy. However, identified-approach was experienced as more autonomous compared
to identified-avoidance. Implications for the unidimensionality of the autonomy continuum
and scales development will be discussed.

Contribution 3
Motivation at work: From continuum to cluster
Name: Emanuele Chemoli
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Abstract:
I verified the structure of the Revised Motivation at Work Scale (Gagné, Forest, Vansteenkiste,
Van den Broeck, Crevier-Braud, Bergeron, & Roussel, 2010) using a Partial Credit Model
(PCM, Masters, 1982). It is an extension of the Rasch model (Rasch, 1980; Wright &
Masters, 1982; Wright & Stone, 1979), which provides indices to determine whether there
is enough item spread along the continuum, as opposed to clumps of them, and enough
spread of motivation among persons (Bond & Fox, 2007). Results showed that the measure
is not represented along a single continuum. Exploratory Factor Analyses showed that the
MAWS-R is best represented by multiple factors that do not load on an overall second order
factor. Because the outcomes of controlled and autonomous motivation have been shown to differ (Gagné & Forest, 2008; Gagné & Deci, 2005), we should find two categories of workers characterized by different motivational profile: one representing high autonomous motivation with low controlled motivation, and one representing high controlled motivation with low autonomous motivation. Furthermore, if it is true that people differ both in quality and quantity of motivation (Deci & Ryan, 2000), we should find that some workers endorse both autonomous and controlled motives, whereas others score low on both motives. We used cluster analysis to generate motivational profiles: It groups motivational scores on the basis of multiple characteristics so as to maximize between-group heterogeneity and within-group homogeneity and thereby capture the multivariate interactions between the motivational dimensions (Vansteenkiste et al., 2009). I found the four expected groups.

SYMPOSIUM 3B
Motivation priming and nonconscious processes
Chair: Holley Hodgins

Symposium Abstract:
In the past decade, researchers have used nonconscious priming techniques to examine effects of motivational processes on behavioral regulation of prejudice, prosocial behavior, physical activity, defensive and threat responses, hostile and nonhostile humor, implicit self-esteem, and academic performance. Nonconscious motivation has been primed in different laboratories and with supraliminal and subliminal techniques. Together, results support that situational motivation cues exert substantial behavioral effects in directions consistent with self-determination theory (SDT). Moreover, there is evidence that individual differences sometimes buffer situational motivation effects in directions also predicted by SDT. This symposium presents four empirical approaches to motivation-relevant nonconscious processes that engage the following broad questions:
1. What is the evidence for nonconscious situationally-induced motivation processes
2. What is the evidence that nonconscious situationally-induced motivation is moderated by individual differences related to autonomy and mindfulness?
3. What are the implications of research findings for a theory of the self?
4. How do the findings relate to the SDT understanding of choicefulness?

Contribution 1
The automatization of autonomy: How self-determination influences the implicit self-regulation of prejudice
Name: Lisa Legault
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Email: lisa.legault@utoronto.ca

Abstract:
In this presentation, I address the implicit social cognitive processes underlying the relative advantage of being self-determined to self-regulate prejudice. Based on recent evidence that self-determined prejudice regulators demonstrate reliably less prejudice than non-self-determined prejudice regulators (Legault, Green-Demers, Grant, & Chung, 2007), I propose and test an ‘internalization-automatization hypothesis’. That is, I examine the extent to which prejudice is automatically regulated for those with varying sources of motivation to regulate prejudice. In Study 1 (N=134), I assess the impact of self-regulatory depletion on the self-regulation of prejudice. As anticipated, results reveal no influence of depletion among self-determined prejudice regulators. In contrast, when non-self-determined prejudice regulators were depleted, prejudice increased, relative to non-depleted controls. In Study 2 (N=84), I examine differences in the automatic activation and application of stereotypes among those high and low in self-determined prejudice regulation. In line with expectations, both types of prejudice regulators displayed similar stereotype activation. However, only self-determined prejudice regulators inhibited the automatic application of stereotypes. In Study 3 (N=90), motivation to be nonprejudiced was manipulated; participants primed...
with self-determined motives to be nonprejudiced demonstrated less prejudice than both non-primed controls and those primed with non-self-determined motivation. Results offer support for the intergroup and self-regulatory benefits of internalizing motivation to regulate prejudice. Implications for the automatization of autonomous self-regulatory functioning are presented, and the resultant possibility of reducing prejudice is underscored.

**Contribution 2**

Deepening knowledge on automaticity of motivational orientations

Name: Rémi Radel
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Co-authors: Philippe Sarazin

**Abstract:**

Previous studies combining automaticity research with SDT have shown that the general motivational orientations postulated by SDT (autonomous and controlled motivation) can be triggered outside of individuals’ awareness by the mere perception of suggestive stimuli. This finding is groundbreaking insofar as it indicates a direct link between a stimulus and motivational orientation. Such motivational orientation was traditionally conceived as the result of a cognitive evaluation of the situation based on the expected needs satisfaction. However, this line of research is still at an embryonic state and we think that before claiming the existence of this alternative route and extrapolating about its effects, some important questions have to be answered. Therefore, we conducted a research program including three studies to extend research on the automaticity of motivational orientations. The first study examined whether motivational orientation for a new physical activity can be primed by subliminal stimuli. The second study took place in a natural educational setting and examined whether academic performance can be affected by subtle cues embedded in the teaching material. The third study was designed to examine whether motivational orientations can be primed by social contagion using a paradigm in which participants heard cues about one’s motivation, while their attention was divided. Together, these results demonstrate that 1) motivational orientations can be activated outside of individuals’ awareness, 2) this priming can occur in real-life contexts with undeniable ecological implications, and 3) it is moderated by individual differences in mindfulness.

**Contribution 3**

The autonomous personality as a buffer for value-incongruent primes

Name: Netta Weinstein
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Email: netta.weinstein@uni-hamburg.de
Co-authors: Andrew K. Przybylski

**Abstract:**

A broad and growing literature suggests that people are vulnerable to primes or influences from the environment (e.g., Bargh & Chartrand, 1999), which shows that exposure to subtle environmental stimuli can shape perception, emotion, and behavior in predictable ways. Though many studies have replicated this basic idea, few have explored the possibility that individuals might shape their own reactions to primes. This talk applies self-determination theory (Deci & Ryan, 1985) to this topic in order to explore limits of primes. We propose that autonomously functioning individuals, namely those who tend to operate with a sense of choice and self-initiation rather than from self-imposed pressures, are one important group who respond selectively to certain non-conscious primes. Specifically, we expect that autonomous individuals might avoid reacting to primes incompatible with their previously held values. Experiments testing this idea primed participants in a way consistent and inconsistent with commonly held values: those of giving versus selfishness, and those of environmental friendliness versus wastefulness. Results showed that autonomously functioning participants were less likely to act in a selfish way after being primed to do so (selecting to donate more money rather than to keep it), and made fewer decisions destructive to the environment after being primed with environmentally unfriendly attitudes. Implications for the nature and consequences of autonomous orientation are discussed.
Contribution 4
On the investigation of primed and chronic motivational orientations
Name: Chantal Levesque-Bristol
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Abstract:
Motivational orientations develop over time. Although we often experience a sense of volition in our actions, perceptions, feelings, and behaviors, these might not always be determined by conscious self-regulatory processes. Thus some psychological processes relevant to autonomous and heteronomous motivation may occur outside of people’s awareness. Through repeated exposures to autonomy supportive environments, individuals would be more likely to develop an autonomous motivational orientation. Controlling environments would be more likely to lead to controlling motivational orientations. In the first study we present, we assessed chronically accessible autonomous motivation toward school with a free-response measure as well as level of self-report autonomous motivation with the Academic Motivation Scale. Chronically accessible motives were found to be more predictive of actual behavior, that is, attendance at an experimental session a month later. The AMS was unrelated to the actual attendance behavior. If motivational orientations are developed over time and can predict actual behavior, it is possible to hypothesize that motivational orientations could be temporarily primed through environmental cues relevant to autonomy and heteronomy. In the second study presented, participants were primed with autonomous or controlled motivation using the Scramble Sentence Test (Srull & Wyer, 1979). Participants primed with autonomous motivation displayed higher levels of intrinsic motivation, interest-enjoyment, perceived choice, and performed better than those primed with controlled motivation. The major theoretical contribution of this research to the motivation literature is to point to the importance of studying the significance and impact of both automatically and consciously regulated motivation on perceptions and behavior.
CONTRIBUTION 1

Broadening the study of infant security of attachment: Maternal autonomy-support in the context of infant exploration

Name: Geneviève A. MAGEAU
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Email: g.mageau@umontreal.ca
Co-authors: Natasha Whipple; Annie Bernier

Abstract:
While security of attachment is conceptualized as a balance between infants’ attachment and exploratory behaviours, parental behaviours pertaining to infant exploration have received relatively little empirical attention. Drawing from self-determination theory, this study seeks to improve the prediction of infant attachment by assessing maternal autonomy-support during infant exploration, in addition to maternal sensitivity. Seventy-one dyads participated in two home visits. Maternal sensitivity was assessed when the infants were 12 months old, while maternal autonomy-support and infant attachment were assessed at 15 months. The results revealed that autonomy-support explained an additional portion of the variance in attachment when maternal SES and sensitivity were controlled. These results speak to the relevance of a theory-driven approach to examining maternal behaviours in the context of child exploration.

CONTRIBUTION 2

The relative contributions of autonomy and attachment security in the willingness to seek support

Name: Martin LYNCH
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Abstract:
Prior research (Ryan, La Guardia, Solky-Butzel, Chirkov, & Kim, 2005) suggests that people are more willing to turn to others during an emotionally salient event when they experience those others as providing satisfaction of basic psychological needs, including the need for autonomy. The attachment theory tradition however suggests that security of attachment plays a crucial role in support-seeking behavior. The present research seeks to address the relative contributions of autonomy versus security in the willingness to seek support (emotional reliance, ER). A survey study (N= 247) assessed dispositional and relationship-specific measures of both autonomy and attachment. In addition, Big Five traits were assessed to control for these personality variables. MLM analyses showed that whether measured dispositionally or situationally, both autonomy and security contributed to the willingness to turn to others. However, at both levels emotional reliance was more strongly related to the autonomy dimension. Similarly, when the outcome was vitality in relationships, associations were substantially greater with autonomy support than with either attachment anxiety or attachment avoidance. The study thus provides evidence that autonomy and its support may be more closely associated with important relationship processes involving emotion regulation and well-being than is attachment security. In addition, those high in neuroticism were more likely to seek emotional support; however, the more neurotic one was, the weaker the association between ER and well-being, suggesting that although the highly neurotic may seek emotional support from their partners, they may be less likely to benefit from it.
Contribution 3
The importance of supporting autonomy to the development of high-quality relationships in the context of self-disclosure
Name: Christopher P. NIEMIEC
Organization: University of Rochester, USA
Email: niemiec@psych.rochester.edu

Abstract:
Whereas self-determination theory (SDT) maintains that satisfaction of the basic need for autonomy is an organismic necessity for effective functioning in interpersonal interactions as well as in solitary endeavors, various psychologists have argued that having high-quality relationships requires that people relinquish autonomy in service of their relationships. Past studies in the SDT tradition used questionnaire methods to show that mutuality of autonomy support was related to higher-quality relationships and greater well-being, but causal conclusions cannot be drawn from those studies. The current research used an experimental paradigm in which a participant and an experimental accomplice engaged in a mutual self-disclosure activity to test whether supporting versus thwarting a participant’s autonomy while developing a new relationship would affect the quality of the participant’s relationship and well-being. This research examined relationship development in the experimentally induced non-autonomy-supportive (i.e., controlling) conditions of (1) being rewarded for participating and (2) being ego-involved in the activity, relative to neutral conditions. Results indicated that participants who were rewarded or ego-involved reported less satisfying relationship development, and this was confirmed behaviorally with a closeness measure. In contrast, providing participants with choice about how the mutual self-disclosure activity would proceed led to higher-quality relationship development and more positive affect, relative to a control group. In sum, when individuals’ autonomy was thwarted during a self-disclosure activity they developed less satisfying relationships, whereas when their autonomy was supported they developed more satisfying relationships.

SESSION 7B
SDT approaches to understanding and promoting pro-social and pro-environmental behaviors
Chair: Netta Weinstein

Contribution 1
Inspiring self-determination and a sense of youth purpose through social action
Name: Jeffrey N. JONES
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Email: jeff.jones@wmich.edu
Co-authors: Joshua Bench; Bethany Warnaar

Abstract:
Purpose has been defined as the intention to engage in activities that are meaningful to the individual while having positive impacts on the larger community. Purpose has been not adequately explored, but may be a primary developmental task of adolescence. This article uses self-determination theory as a conceptual frame to consider the processes that lead to positive outcomes for youth involved in community service and social action. This research study is situated in a community-based social action program. PeaceJam was created to engage gang members in inner-city Denver in prosocial activities. Youth in PeaceJam study the lives of Nobel Peace laureates, identify a pressing community issue, and plan and implement a social action project. The culminating activity is a weekend spent presenting projects and working with a Nobel Peace laureate. Quantitative surveys at regional events (n=400), interpretive interviews (n=40), and observations at three area programs are used to access youths’ perceptions. This investigation is guided by the following: How do youth experience autonomy, belongingness, and competence in the PeaceJam program? How do youth relate affordances of the program environment with
engagement in community service? How does participation affect perceptions of purpose and meaning? Findings indicate that reported levels of the constructs of basic needs theory and purpose differ with student background characteristics as well as length and level of participation in PeaceJam. This article provides a contextualized view of the development of self-determination, purpose, and meaning through the lived experience of those adolescents forging a new path in life.

Contribution 2
How prosocial videogame engagement influences psychological need satisfaction and well-being: A self-determination theory based approach
Name: Andrew K. PRZYBYLSKI
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Abstract:
Online videogame play is an increasingly popular recreational activity throughout the developed and developing world. To date, the main thrust of research examining these virtual contexts has focused on the possibility that might increase social isolation and interpersonal aggression. Surprisingly little empirical work is concerned with how online videogame engagement can serve to strengthen social bonds and positively influence well-being. The present talk presents an overview of recent observational and experience sampling studies which apply self-determination theory to explore this issue. The talk focuses on how how, and to what extent, pro-social aspirations and behaviors enacted inside virtual contexts transfer to psychological need satisfaction, and well-being in everyday life.

Contribution 3
Self determination and the prediction of goal oriented energy conservation behavior in western Australia
Name: Dave WEBB
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Co-authors: Patricia Saldaris; Tim Mazzarol; Geoffrey Soutar

Abstract:
Prompted by concern over global warming, natural resource conservation issues are receiving considerable attention. Driven by compliance and more proactive motivations, industries such as the utilities sector are responding with initiatives to promote more sustainable consumption behaviors. To support organizational responses, a study exploring household energy conservation behavior was undertaken. To develop a specific understanding of energy conservation oriented behaviors, the model of goal directed behavior (MGB), an extension to the theory of planned behavior (TPB), was combined with the theory of self-determination (SDT). The formulation of a model merging MGB and SDT contributes not only to theory development but also, to a model that helps explain sustainable behavior in an important goal oriented context, making a timely contribution to knowledge. Online surveys were administered randomly to a panel of 200 household energy conserving males and females between the ages of 18 and 70 years in Western Australia. A final well-fitting model including positive emotion, a combination of intrinsic motivation and integrated regulation (greater self determination), frequency, recency as well as intentions as predictors of identified energy conservation behaviors was found. As expected, the path between self determination and behavior (0.23) was greater than that of other identified direct predictors i.e., intentions (0.15) and recency (0.21). Thus, the importance of building self determination to achieve desired energy conservation goals is clear. Examples of how this might be achieved and future research ideas will be presented at the conference.
SESSION 7C
Person-centered approaches in an adolescent, elderly, and employer population
Chair: Fred Guay

**Contribution 1**
Motivational profiles analyses techniques in Self-Determination Theory
Name: Julien CHANAL
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Co-authors: Guay Frederic; Senecal Caroline; Vachon Véronique

**Abstract:**
The use of profiles analyses techniques have increased over the past few years in the psychological literature and some recent articles on self-determination theory literature have used these techniques (e.g., Boiché, et al. 2009; Ratelle, et al., 2007; Vansteenkiste, et al., 2009). The purpose of this presentation will be (1) to offer a rationale for analyzing self-determined motivation via a person-centred approach instead of analysing it via a variable-centred one or via the self-determination index, (2) to browse the diversity of approaches used by researchers regarding profiles analyses techniques in the SDT framework and to offer some recommendations to the field, (3) to present an example on how results and conclusions could differ with a same given data set (522 adolescents in which we have measured types of motivation, determinants, and consequences in the physical activity realm) depending on the approaches used in the operationalization of self-determined motivation, and (4) to show that these approaches allow researchers to develop new ways to test SDT postulates. Finally, we present recent developments of statistical techniques using a person-centered approach (e.g., latent class analyses).

**Contribution 2**
Motives for regular physical activity in elderly people: A self-determination theory perspective
Name: Claude Ferrand
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Co-authors: Sandra Nasarre; Christophe Hautier; Marc Bonnefoy

**Abstract:**
Including regularly physical activity in our daily lives leads to a multitude of physical, psychological and social benefits, in particular for elderly people. The aim of this qualitative study was to achieve a better understanding of the motives for regular physical activity used by elderly people. One hundred and ninety two elderly people (Mage = 74.95, SD = 4.61) practising physical activities in an association called « CODAPRS » in urban area volunteered to participate in part 1 of the study. They completed the French version of the Sport Motivation Scale and a cluster analysis revealed the presence of two motivational profiles. Based on data from part 1, a random of selection of elderly people inside two motivational profiles was invited to participate in an interview (part II of the study). Thus, nine women and ten men (cluster 1) and eight women and eleven men (cluster 2) signed the consent form and accepted to be interviewed. Results showed that for elderly people (cluster 1) practising physical activities was a mean to remain active and resist the powerlessness of ageing. The pursuit of well being and the relational and body image benefits are the three themes which emerge of the analysis of the interview transcripts. For elderly people (cluster 2), practising physical activities was felt as a necessity to keep fit and not to deteriorate too quickly. The study provides insights into how motives of elderly people differently self-determined are related to the interest and usefulness of physical activities in relation to health.
Contribution 3
Workers’ motivation profiles: The quality of motivation matters
Name: Hermina VAN COILLIE
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Co-authors: Anja Van den Broeck; Willy Lens; Maarten Vansteenkiste

Abstract:
Workers may vary considerably in their enthusiasm and motivation for their work. Various empirical studies in the realm of SDT supported the assumption that being motivated in an autonomous rather than a controlled way, associates positively with well-being, favorable work-attitudes, qualitative performance and continuous persistence. To further understand the quality of work motivation, the present study aims to complement this line of research by identifying subgroups of individuals and their links with various variables.

Three questions were addressed in this study. First, we examined how autonomous and controlled work motivation naturally combine. In line with SDT, we expected to find four groups of employees: an autonomous, a strongly, a controlled and a weakly motivated group. Second, we characterized the workers within each group in terms of socio-demographic variables. Finally, to further add to the external validity of the quality of workers’ motivation, we studied the different motivational profiles with respect to interesting HR-variables.

The questions were examined in a representative sample of 1822 Belgian employees. Results of a cluster analysis indicated that the four hypothesized groups emerged. Interesting links with both socio-demographic and HR-variables were found, providing not only external validity for the four cluster-solution, but also interesting and even counter-intuitive findings that give us more insight in the motivation process.

SESSION 7D
Primming and non-conscious processing
Chair: Chantal Levesque-Bristol

Contribution 1
The impact of non-consciously activated motivation on exercise
Name: James DIMMOCK
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Co-authors: Lauren Banting; Robert Grove

Abstract:
The purpose of this investigation was to examine the effects of non-consciously activated motivation on exercise duration, intensity, and perceived exertion. Sport science students (N=97) were informed that the researchers were interested in determining the effect of exercise on mood, and they were subsequently asked to undertake a cycling task for 30 minutes. Heart rate monitors were given to participants prior to their initiation of exercise on stationary bicycles. Attached to the bicycles were scrambled sentence tasks, which were marketed as an activity for the English Department at the university. Some participants received scrambled sentences in which ‘autonomous’ words were embedded, others received scrambled sentences in which ‘controlled’ words were embedded, and a final group received scrambled sentences containing no words related to motivation. These scrambled sentences took approximately 10 minutes to complete. After 20 minutes of cycling, participants were informed that we expected to witness changes in their mood after only 20 minutes of exercise, and that they could cease their cycling at any time if they wished (to a maximum of 30 minutes in total). Results indicated that participants who performed the ‘controlled’ scrambled sentence tasks exercised for significantly less time than participants in the ‘autonomous’ sentence group (p <.05). Those in the ‘controlled’ sentence group also rated their perceived exertion for the task as significantly higher than the other groups (p <.05), even though there were no significant differences in heart rate intensity between the groups (p >.05). A manipulation check confirmed that participants did not suspect a link between the scrambled sentence task and the exercise.
Contribution 2
Social comparison’s autonomous and heteronomous aspects
Name: Alexios ARVANITIS
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Co-authors: Christopher Niemiec; Alexandra Hantzi; Edward Deci

Abstract:
Social comparison provides useful feedback for evaluating performance. Relevant literature (Buunk et al., 1990; Wood, 1989) has suggested that people view social comparison information either in an unbiased manner used for self-improvement or in an “ego-serving” manner used to enhance self-esteem. From a Self-Determination Theory point of view, such differences suggest that a focus on the informational aspect of social comparison supports intrinsic growth tendencies and a focus on the controlling aspect of social comparison creates pressure for a particular social outcome. We conducted a first study to examine the above. Participants received social comparison information regarding the relationship between education and contributing to the community. A 2(Prime: Autonomy, Control) X 2(Comparison: Upward, Downward) experimental design was used. Results showed that control-primed participants valued the goal of community contribution less when they compared upward than downward (i.e. when comparing to someone better than to someone worse) whereas no difference was observed for autonomy-primed participants. Also, control-primed participants expressed greater probability for attaining the goal, when compared to autonomy-primed participants. Further analyses suggested that control-primed participants aligned intrinsic reasons for going to university with the comparison evaluation, were defensive with regard to their current educational course, and aligned the prospect of attaining the goal with introjected reasons for going to university. On the other hand, autonomy-primed participants were not defensive and aligned both the value and the prospect of attaining the goal with intrinsic reasons for going to university.

Contribution 3
Self-determination and altruism: Priming relatedness needs promotes prosocial motives and behavior
Name: Louisa PAVEY
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Co-authors: Tobias Greitemeyer; Paul Sparks

Abstract:
Four studies investigated whether promoting people’s feelings of self-determination (autonomy, competence, and relatedness) might elicit greater pro-social tendencies. Study 1 (N = 115) examined the relationships between people’s autonomy, competence, relatedness, and charity donation intentions; it was found that only relatedness predicted unique variance in charity donation intentions. Study 2 (N = 210) used a longitudinal study design and found that only relatedness predicted an increase in pro-social behavior. Study 3 (N = 155) used a sentence unscrambling task to prime people’s autonomy, competence, and relatedness. Relatedness prime participants reported greater interest in volunteering and intentions to volunteer than did participants in the other conditions. Study 4 (N = 54) found that relatedness prime participants donated significantly more money to charity than did neutral prime participants. The results are discussed in relation to the congruence between individual and social outcomes.
C1: GOALS, VALUES, AND ASPIRATIONS

1. Do People Differentiate Between Intrinsic and Extrinsic Goals in Physical Activity Behaviour?
   Name: Sarah MCLACHLAN
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   Organization: University of Nottingham, Nottingham, UK
   Co-authors: Martin Hagger

   Abstract:
   Self-determination theory draws a broad distinction between intrinsic and extrinsic motivation and proposes that goal pursuit grounded in intrinsic motivation will lead to more adaptive outcomes than the pursuit of goals rooted in extrinsic motivation (Deci & Ryan, 1985, 2000). Despite a wealth of empirical evidence to support this prediction (e.g., Vansteenkiste, Simons, Soenens, & Lens, 2004), research has not yet explored whether individuals can and do differentiate between intrinsic and extrinsic goals. Two studies aimed to determine whether this differentiation occurs in people’s memory for goals in leisure-time physical activity. Using memory recall methods from social cognition, participants in the first study were asked to freely generate physical activity goals that they or others may wish to attain, while participants in the second study were asked to recall a list of intrinsic and extrinsic goals after making a behavioural decision regarding their future physical activity behaviour. A sub-sample of participants in the first study was also asked to code their freely-generated goals as intrinsic or extrinsic. Results revealed that individuals’ goal generation and recall exhibited clustering by goal type that differed significantly from chance levels, t (97) = 2.19, p <.05, t (103) = 2.49, p <.05, respectively. However, participants seemed to encounter difficulties when explicitly coding goals. Implicit methods are recommended for future research to determine whether individuals discriminate between goal types within self-determination theory.

2. Dimensions of performance in a competitive context: an experimental analysis of achievement goals and normative feedback
   Name: Oana NEGRU
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   Organization: Babes-Bolyai University, Cluj, Romania
   Co-authors: Alexandru Subtirica

   Abstract:
   Self-determination in competitive context is a very intriguing issue. In this experimental study we investigated, on a sample of high-school students (N = 156), how feedback comparing a participant’s standing to a competitor influences the impact of different achievement goal orientations on task performance. We used a 2X2 factorial design with the independent variables: type of goal orientation (mastery versus performance) and normative feedback (better versus worse “than you”). We also introduced a base-line task requirements condition, with no goal orientation or comparison feedback. We examined how normative feedback valence and achievement orientation influence task performance, appraised in terms of response rapidness and response accuracy. Also, we analyzed participants’
self-assessed task interest and involvement. For response accuracy, goal framing and feedback had significant effects, with feedback valence differentially influencing mastery versus performance goals. Furthermore, we found a significant interaction between goal orientation and comparison feedback for response accuracy, $F(1, 151) = 16.43, p = .000$, $\eta^2 = .098$, but not for rapidness, $F(1, 151) = 2.53, p = .113$, $\eta^2 = .017$. In this study, participants who had pursued a mastery goal reported to have been significantly less involved in executing the activity than those with a performance goal or with no preset goal. This suggests that the valence of normative feedback has an important influence on how individuals subjectively define a task, more so than the achievement goals they are assigned. Results are discussed regarding the development of self-determination in competitive contexts, with both research and applied implications.

3. Value fulfillment and intrapersonal identity conflicts

Name: Shani OPPENHEIM
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Organization: University of Haifa, Israel
Co-authors: Prof. Sonia Roccas; Dr. Jenny Kurman

Abstract:
Lately there is a growing interest in the consequences of multiple identities for personal well-being. So far, no consensus has emerged: Some theories and findings suggest that multiple identities contribute to personal well-being, while others point to their detrimental effects. We suggest that value fulfillment plays a crucial role in determining the effect of multiple identities on well-being. We expect that feeling value fulfillment in each of the multiple identities, results in psychological well-being and low intrapersonal identity conflict. Study 1 focused on a single identity and examined whether well-being is related to the perception that an identity enables fulfillment of important values. 112 university students reported the extent to which their student identity enabled them to fulfill each of the ten values identified by Schwartz (1992). They then completed several measures of well-being. The student identity was perceived as enabling the fulfillment of autonomy (self-direction) and competence (achievement) values. The extent of perceived value fulfillment was positively correlated with well-being. Study 2 focused on multiple identities and examined women who are researchers (N=124). The two identities were perceived as enabling the fulfillment of different values: the “researcher identity” enables to fulfill autonomy (self-direction) and competence (achievement) values whereas the “woman identity” enables to fulfill benevolence and tradition values. The extent of perceived value fulfillment in each identity was positively correlated with well-being and low intrapersonal identity conflict.

4. Teachers’ intrinsic-extrinsic motivation and goal orientations in work and life

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Abstract:
Introduction: This study examined whether teachers’ achievement goals or their goal orientations in life are better determinants of their intrinsic-extrinsic motivation and motivation in schools. Method: An instrument assessing goal orientations in life (Papaioannou, Simou et al., 2009), teachers’ achievement goals in work (Christodoulidis & Papaioannou, 2007) and the Work Motivation Inventory (Blais, et al, 1993) were administered to 430 public school teachers of physical education, math, English and Greek language. Results: Factor analytic results supported the factorial validity of the instruments and reliability analyses indicated that all scales’ alphas were above.70. Results from regression analyses revealed that personal improvement goal in life was the best predictor of intrinsic motivation and identification in work, social approval goal in life was the best predictor of introjection, and performance avoidance goal in work was the best predictor of external regulation. A significant amount of variance of amotivation was explained
by personal improvement goal in life, but the relationship between these two variables was negative. Conclusions: These findings indicate that goal orientations in life might be stronger determinants of teachers’ intrinsic-extrinsic motivation and amotivation in work than teachers’ achievement goals in work. Personal improvement goal in life seems to be an important determinant of teachers’ motivation in work.

5. On the Relation Between Values and Well-Being of Contributors to Society: The Mediating Role of Passion
   Name: Ariane C. ST-LOUIS
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   Organization: Université du Québec à Montréal, QC, Canada
   Co-authors: Marc-André K. Lafrenière; Robert J. Vallerand

Abstract:
Some people invest an important amount of time and energy in a cause that they love. Their cause somehow even becomes a part of their own identity. Passion has two facets (Vallerand et al., 2003). Individuals can be harmoniously passionate so that they feel free to engage in the activity, which in turns brings positive outcomes in their lives. But they can also be obsessively passionate. In that case, they experience an uncontrollable urge to partake in the activity and some negative consequences derive from this type of passion. In Study 1, we tested a model proposing that intrinsic versus extrinsic values (Kasser & Ryan, 1993) influence the type of passion people develop toward their cause, which in turn predicts their psychological well-being. Participants were 98 men and women who were nominated “Personality of the week” by the La Presse newspaper for contributing to society. Results from Structural Equation Modeling supported the model. Study 2 replicated the previous model with 86 international humanitarian workers. These findings lead to a number of theoretical and applied implications.

6. An analysis of extrinsic and intrinsic aspirations of employed versus student emerging adults in Romania
   Name: Alexandru SUBTIRICA
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   Organization: Babes-Bolyai University, Cluj, Romania
   Co-authors: Oana Negru

Abstract:
The present study focuses on an analysis of emerging adults’ extrinsic and intrinsic aspirations, as conceptualized in the Aspiration Index. We aimed at conducting a comparative analysis of goals and aspirations of employed (n = 102) versus student (n = 136) emerging adults in Romania (N = 238). We tapped into dimensions of adulthood and emerging adulthood using the Inventory of the Dimensions of Emerging Adulthood (Reifman, Arnett, & Colwell, 2007), and an adapted version of Criteria for Adulthood (Arnett, 1998). As transitions to adulthood involve a substantial amount of career decision-making we also appraised the manner in which these emerging adults approach such decisions, through the Career Decision Self-Efficacy Scale (Betz, Klein, & Taylor, 1996). Results are discussed from the perspective of differences in aspirations between employed and student Romanian emerging adults, in an attempt to better understand how their life-goals systems can develop in transitions to adulthood.
7. The effects of extrinsic goal over the career motivation in Japanese early adolescents
Name: Takashi SUZUKI
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Co-authors: Shigeo Sakurai

Abstract:
Extrinsic goal, According to Kasser & Ryan (1993, 1996), has negative effects against the psychological well-being, irrespective of sex, age, and cultures. So, it could be said as the 'dark side' of American dream. We, in Japan, attempted to investigate what kind of shadow this dark side (i.e. extrinsic goal) cast over the career image which Japanese early adolescents (7th-9th grade) are nursing. 2 questioner studies were conducted. Study 1 showed that (1) extrinsic goal has no significant correlation with the future time perspective and (2) by means of multiple-regression analysis, extrinsic goal independently heighten the prestige of their aspiring career even after controlling for sex and future time perspective. To the contrary, intrinsic goal has strong correlation with the future time perspective and no significant effects to the prestige of aspiring career. Additionally, Study 2 showed that extrinsic goal has no effects to promote the motivation for the career education. To the contrary, intrinsic goal has positive correlations with the career motivation. The details of method and meaning of their results will be discussed on the poster.

8. Understanding the Relation between (Encouraged) Goal Attainment and Ego-integrity and Death Attitudes: The Role of Accumulated Need Satisfaction among Older Adults
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Co-authors: Maarten Vansteenkiste

Abstract:
In this study, we investigated the effects of goal attainment during life time on well-being indicators that are particularly relevant in old age, that is, psychosocial identity development (ego-integrity versus despair; Erikson, 1963) and death attitudes. Building on Self-Determination Theory (SDT; Kasser & Ryan, 1996), we hypothesized that the attainment of intrinsic goals would yield more desirable well-being correlates relative to the attainment of extrinsic goals. Such effects would occur because these goals are differently linked to the satisfaction of one's basic psychological needs. However, in light of the match-hypothesis (Sagiv & Schwartz, 2000), it is well possible that extrinsic goal attainment would yield a positive well-being effect when senior adults felt that their partner encouraged them to pursue such goals, creating a fit between one’s attained and the socially valued goals. Questionnaires were administered in a sample of 341 Belgian elderly (mean age = 73 years). The results confirm that the attainment of intrinsic goals is positively associated with ego-integrity and negatively with despair, whereas the attainment of extrinsic goals was unrelated. Moreover, we found evidence for psychological need satisfaction mediating the association between the attainment of intrinsic goals, and psychosocial identity development. Furthermore, the encouragement of intrinsic goals by the partner yielded comparable results as the attainment of intrinsic goals. Being encouraged to pursue extrinsic goals was however associated with more despair and death anxiety. The present results mainly fit in with SDT, and are more profoundly examined in the discussion.
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Co-authors: MªPaz Galindo; Alicia Breva; José Miguel Díaz; Elena Gámez

Abstract:
One of the basic hypotheses derived from SDT suggests that the intrinsic values are positively related to emotional well-being of human beings while, on the contrary, extrinsic values are negatively related to this well-being. In order to explore this prediction a study was conducted in which 418 first-year students participated from two Spanish geographical contexts (Seville and Tenerife). Values were measured with the “Aspiration Index”, well-being was measured with Positive and Negative Affect Scale and Satisfaction with Life Scale. The results obtained in the analysis of correlations, in conjunction with results of previous research conducted by the authors of this study, were not as conclusive as expected. Trying to get more information about that results, we conducted a factorial analysis to determinate how closely the dates obtained with the “Aspiration Index” apply to the sample of students corresponded to structure of the inventory published by the authors. In addition to this, following the recommendations of Grouzet et al. (2005), we did again the analysis of correlations between values (intrinsic and extrinsic) and emotional well being taking into account the factorial structure obtained with the dates of our study. Overall, the results showed that although the factor structure obtained was generally similar to the original publication, some of the relationships between values and emotional well-being would increase when the results of factorial analysis are taken in account.

C2: INTERNALIZATION AND SELF-REGULATORY STYLES

10. Development and validation of English Learning Motivation based on SDT
Name: Myong Sook KIM
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Abstract:
This research is to develop Egnish Learning Motivation Scale based on self determination theory. The scale is meant to be developed for elementary and secondary school students who are learning English as a foreign language. The concrete English learning situations and English learning orientations rather than general situations are meant to be imbedded(immersed) in the item statement. The test construct was composed of 5 factors: amotivation, external regulation, introjected regulation, identified regulation extrinsic motivation and intrinsic motivation. The test’s quality was validated with respect to reliability and validity. In addition, the relationship between English learning motivation, goals, and children’s perception of parents’ and teachers’ autonomy support was reported.
11. Russian Youth Moral Self-determination: Conception and Research Program
Name: Alla KUPREYCHENKO
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Organization: Psychological Institute of RAS, Moscow, Russia
Co-authors: Alla Kupreychenko; Anastasia Vorobieva

Abstract:
The psychological knowledge about self-determination regularities comes to be in a great demand at critical periods of personality and social groups development and social evolution, when social norms and value systems are changing radically in individual and group consciousness and public conscience. Self-determination is one of the real psychosocial mechanisms for changing of life principles and senses, values and ideals, norms and behavior codes as on the personal level so on the level of social group. One of the main problems, the researchers are facing now with, is the analysis of factors, regulators and determinants of youth moral self-determination which is understanding as the orientation process of personality with moral ideals and values system, among other people and social groups which are the bearers of this system; also as conscious process of searching, selecting and creating one’s own moral standarts and ideals, and after that – principles, values, norms and rules based on it. For researching of this phenomenon the author’s methodological way has been elaborated. It consists of questionnaire “Personality moral self-determination” based on main religious and secular ethic conceptions, psychological conceptions of personal morality of B.S. Bratus, C. Gilligan, J.C. Gibbs, L. Kohlberg, K.K. Platonov, A.A. Khvostov, level-sensitive personality and group self-determination model of A.L. Zhuravluov and A.B. Kupreichenko, moral self-determination structure understanding of authors. The projective technique was used also for studying of personal attitude to unethical objects such as mass communication products transgressing moral norms accepted in society. It allows to disclose extramental components of moral regulation.

12. The role of self-determined motivation in the dissonance process: An exploratory study
Name: Karine J. LAVERGNE
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Organization: University of Ottawa, Ontario, Canada
Co-authors: Luc G. Pelletier; Nicole Aitken

Abstract:
The psychological discomfort (i.e., negative affect) induced by the presence of conflicting cognitions (i.e., dissonance) has been shown to motivate individuals to adopt a strategy to reduce the dissonance. In the present studies we set out to examine whether people’s level of self-determined motivation plays a role in the amount of dissonance they experience and in how they decide to (not) reduce this dissonance. In study 1 (N=353), we assessed how people react when they detect dissonance about their body weight, personal finances, racial tolerance, and environmental sustainability. A principal components analysis revealed four types of reactions: deflection (DF), inaction (IA), self-monitoring (SM), and self-bolstering (SB). In study 2 (N=687), we examined how these four types of reactions were related to self-determined motivation and dissonance using mediation analysis. Results revealed that (a) affect mediated the relationship between detection of dissonance and the four types of reactions to dissonance; (b) a low level of negative affect predicted IA while a high level of negative affect predicted DF, SM, and SB; (c) the tendency to detect dissonance and to use a deflection or an inaction strategy when dissonance is detected was associated with low self-determined motivation while the tendency to use SB or SM to address dissonance was associated with high self-determined motivation. In agreement with SDT, it appears that when self-determined people experience dissonance in an activity important to them, they act consistently with their own personal values by adopting strategies that reduce dissonance.
13. Autonomous & Controlled Motivation: Testing a buffering hypothesis
Name: Chris LONSDALE
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Organization: University College Dublin, Dublin, Ireland
Co-authors: Edel Langan; Ken Hodge

Abstract:
The purpose of this study was to test two competing hypotheses: (a) controlled motivation would have a detrimental effect on athletes’ experiences (flow and burnout), even in the presence of strong autonomous motivation (SDT-based hypothesis) and (b) high levels of autonomous motivation would negate the detrimental effects of controlled motivation (buffering hypothesis, e.g., Gillet et al., 2009). Adult competitive athletes (n = 315) completed the Behavioral Regulation in Sport Questionnaire (BRSQ), the Sport Motivation Scale (SMS), the Dispositional Flow Scale-2 and Athlete Burnout Questionnaire. Cluster analysis of BRSQ data identified a “high autonomy, low control” group and a “high autonomy, moderate-high control” group. MANOVA revealed that the “high autonomy, moderate-high control” group reported significantly (p <.05) lower flow scores (d =.73) and higher burnout scores (d = 1.42) than the “high autonomy, low control” group. These results suggested that controlled motivation had a detrimental effect on athletes’ experiences. Cluster analysis of SMS data identified a “high autonomy, moderate-high control” group and a “moderate-high autonomy, low-moderate control” group. MANOVA showed no significant group differences in flow or burnout scores, suggesting that controlled motivation did not have a detrimental effect when strong autonomous motivation was present. When highly controlling items were used to tap external and introjected regulations (i.e., the BRSQ), SDT-based hypotheses were supported. The buffering hypothesis was supported when less controlling items were used to tap external and introjected regulations (i.e., the SMS). These results highlight the importance of measurement when evaluating the effects of controlled motivation.

14. Analysis of the dimensional structure of Leisure Motivation Scale (LMS) in a Portuguese higher education sample
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Organization: University of Coimbra, Coimbra, Portugal
Co-authors: Maria Paula Paixão; José Tomás da Silva; José Pacheco Miguel

Abstract:
This study was carried out to analyse the dimensional structure of Leisure Motivation Scale (Pelletier et al., 1991) in two Portuguese samples. Both samples included University of Coimbra students, attending several majors. Two exploratory factor analyses were unable to replicate the dimensional structure proposed by the authors of the original French Canadian version, which comprises 7 factors. Instead, they both found a dimensional structure organised around 5 factors, corresponding the first three to different forms of autonomous behavioural regulation, while the other two correspond to either a controlled or an impersonal type of behavioural regulation. The confirmatory factor analysis was performed in a sample of 280 university students living in student residences. The first model (5 factors) that we tested revealed a moderate fit to the data. When introducing some modification to the error co-variances a good fit was obtained. With the minor modifications introduced the proposed measurement model was confirmed.
15. What motivates the motivators? The development of the Coach Motivation Questionnaire (CMQ)
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Organization: The University of Queensland, Queensland, Australia
Co-authors: Cliff Mallett, Peter Newcombe

Abstract:
In the sporting environment, the motivational sequence (Vallerand, 1997) suggests that coaches’ motivations influence their behaviours, which subsequently have an effect on their athletes’ perceptions of the motivational climate. While coach behaviour has long been the focus of coaching research, a greater understanding of coach behaviour requires the ability to examine their underlying motives. The current study sought to develop and assess a measure of sports coach motivation. Using the framework of self-determination theory, the Coach Motivation Questionnaire (CMQ) was developed over three phases. In the first phase, items for each of the six forms of motivation were developed and pilot tested with a sample of 86 sports coaches. In the second study, the psychometric properties of the measure were assessed using a sample of 556 sports coaches. Results supported the factor structure of the resultant 22-item scale and provided preliminary evidence for the reliability and validity of scores on the questionnaire. Finally, these results were further supported by confirmatory factor analysis with an additional sample of coaches. The CMQ thus appears to be a useful measure of motivation within the sports coaching context.

16. Motivational regulations and physical activity among Norwegian 4th-graders
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Co-authors: Inger M. Oellingrath, Martin V. Svendsen

Abstract:
Grounded in self-determination theory (SDT) (Deci & Ryan, 2000), the purpose of this study was to a) validate a Norwegian version of the pictorial motivation scale (PMS)(Reid, Vallerand, Poulin & Crocker, 2009) among Norwegian 4th-graders without disability and b) to examine the relationship between children’s motivational regulations and their levels of leisure-time physical activity/inactivity. Participants were 470 female and 487 male Norwegian 4th-graders (9 years of age) from Telemark, Norway. Questionnaires consisted of an adapted translated Norwegian version of the PMS (Reid et al., 2009), frequency and duration of leisure-time physical activity, inactivity (Playstation, dvd, TV), as well as social background variables (e.g.,parent educational level, parent body mass index). Results supported the 4-factor structure of the PMS as well as the simplex pattern of correlations between the four subscales. Moreover, participant’s intrinsic and self-determined extrinsic motivation to be physically active in their free-time was positively associated with leisure-time physical activity and negatively associated with the use of transport to school during winter-time, as well as amount of time spent on playing Playstation, watching TV or dvd. The above mentioned relationships were reversed with regards to amotivation and non-self-determined extrinsic motivation. Regression analysis showed that amotivation and non-self-determined extrinsic motivation emerged as significant negative predictors of leisure-time physical activity when social background variables were controlled for. The findings are discussed in light of SDT as well as the measurement of motivation among young children without disability.
17. Relatedness as a predictor of trajectories of identified and introjected regulations during the high school years
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Co-authors: Frédéric Guay

Abstract:
According to SDT, relatedness with significant others fosters psychological growth and internalization. Internalization refers to the process by which people progressively and volitionally endorse beliefs and attitudes that are valued by significant others (Grolnick, Deci & Ryan, 1997). Relatedness has been found to be very important to internalization because it enables adolescents to take on school activities that are not inherently interesting (Ryan & Deci, 2000; Guay, Marsh, Senécal & Dowson, 2008). Although past research explored the effect of interpersonal relationships on motivational outcomes (Martin, Marsh, McInerney, Green & Dowson, 2007), few studies have addressed if relatedness predicts trajectories of identified and introjected forms of internalization (Ratelle, Guay, Larose & Senécal, 2004). The purpose of the present study was thus to test if relatedness with parents, teachers, and peers predicted trajectories of identified and introjected regulations during the high school years. This longitudinal study used a sample of 463 French-Canadian students (283 girls, 180 boys). A group-based trajectory analysis yielded two trajectories of identified and introjected regulations. Logistic regressions indicated that students who perceived high levels of relatedness with their mothers, teachers, and peers were in a trajectory in which identified regulation was high. Furthermore, students who perceived high levels of relatedness with their teachers, their mothers’ educational level was high, and came from families where parents live together were in a trajectory of low introjected regulation. Our results are consistent with past studies and provide additional evidence asserting the contribution of relatedness in facilitating internalization among high school students.

18. Can excuse-making support internalization of personal goals?
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Co-authors: Daniel S. Bailis

Abstract:
Excuses are typically viewed as defensive, immature, and as detrimental to relative autonomy. The present research examined whether under conditions of personal exercise goal failure, tolerance of excuses could actually facilitate internalization of the goal. In one-on-one sessions, participants who valued physical activity described their most recent exercise-related failure. Most participants spontaneously wrote excuses, when not explicitly asked to do so. Next, participants read an ostensible Psychology Today article containing quotes and statistics from personal trainers. In the tolerant condition, the article advocated mundane excuse-making and described it as helpful to exercise goal pursuit, whereas in the intolerant condition the opposite was the case. Two measures of internalization were employed; the first was the relationship between intentions to exercise and behavior. Intentions were measured before the manipulation and physical activity was reported one week after the initial procedure. The second measure of internalization was the relationship between relative autonomy (measured before the session) and basic need satisfaction (measured post-manipulation). As both of these relationships are typically positive, negative or absent relationships would imply a disruption of internalization. Satisfaction of the need for competence was positively related to relative autonomy in the excuse tolerant condition, but not in the excuse intolerant condition. Further, intentions were only significantly and positively related to behavior in the tolerant condition. These results suggest that internalized behavior, such as enacting intentions is supported by short-term tolerance of excuses. Perhaps excuses preserve behavioral value and enjoyment in the event of failure, even for more autonomous individuals.
19. Pilot Adaptation of Religious Self-Regulation Questionnaires in Russia
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Abstract:
A pilot study was conducted in Russia using newly-adapted and developed questionnaires pertaining to religious self-regulation, which is a nearly undeveloped field in the country. We chose the "classic" Allport & Ross ROS, the "modern" SDT-based religious SRQ and a new questionnaire similar to SRQ but based on D.A. Leontiev multi-regulatory model. Also used were two well-being measures, the Purpose-in-Life Test (PIL) and the Satisfaction with Life scale (SWLS), as well as several sociological variables. Autonomous and controlled religiosity factors were confirmed. The new multi-regulatory model items proved robust when being factorized together with SRQ items, for example, the Cronbach alpha of the autonomous religiosity scale was 0.91 compared to 0.84 without the new items. The SRQ/multi-regulatory item pool and the "classic" ROS questionnaires produced several more factors relating to the style of regulation rather than the degree of internalization, including immanent, conditioned and introjected religiosity. Meaningful correlations were observed confirming previous foreign studies and proving the new scales' validity. Autonomous religiosity is linked to church attendance more than controlled religiosity. Immanent religiosity is strongly linked with church affiliation. "Conditioned" religiosity is not even linked with religiosity per se. Opposite-sign correlations of autonomous and controlled religiosity with satisfaction with life were confirmed. Controlled religiosity has a strong negative link with purpose in life, but all religious scales were more positively correlated with its Goals subscale. An interesting finding was the importance of church attendance as an indicator of psychologically sound religiosity. A further graduate-level study is now in progress.

C3: DEVELOPMENT AND PARENTING

20. Parental psychological control, toddler’s affect and later internalization problems: An observational study
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Abstract:
The present study explores how parents promote their toddler’s motivation to do important yet less enjoyable tasks (“Do”; Kochanska & Aksan, 1995), as well as how the tactics used can impact children’s concurrent affect and later psychological adjustment. One-hundred-and-six toddlers (M = 26.4, SD=1.74 months; 61 boys) with their primary caregiver attended two laboratory visits, approximately two weeks apart (M=10.7, SD=6.6 days). Parental psychological control was coded during the clean-up tasks (“Do” - 14 minutes), while toddlers’ affect were coded during various lab activities to get a general evaluation of children’s affect (68 minutes total). Two years later, assessments of children’s psychological adjustment were made by the primary caregiver (Achenbach & Rescorla, 2000). Results suggest that giving orders and using threats were related to children demonstrating more neutral negative (r =.21, r =.24, respectively), irritable/angry (r =.36, r =.24, respectively), and overall negative affects (r =.38, r =.22, respectively). Orders were also positively related to child distress (r =.23), while threats were linked to more sadness (r =.24). Physically forcing the child to perform the task was correlated to more anxiety among toddlers (r =.244), whereas criticising was correlated to more sadness (r =.335). Results also reveal that using more bribes and criticisms were both related to clinical levels of anxiety/depression on the CBCL two years later (r =.43; r =.49, respectively). Together, these findings shed further light on the impact of psychologically controlling strategies on young children, suggesting possible maladaptive consequences to their emotional development.
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Abstract:
SDT is to date the most coherent and empirically founded psychological theory explaining human agency. However, the capacity of self-determination, the basic need for autonomy is in SDT an explanatory construct, rather than an object of study to be explained. An attempt to explain the emergence of human autonomy was provided in autodetermination theory (ADT, Kaliteyevskaya, Leontiev), rooted in cultural-historical (Vygotskian) and existential psychology. In particular, ADT suggests that agency develops from two roots: freedom (activity) and responsibility (autoregulation). Both develop through childhood independent from each other; adolescence is the critical period of their integration resulting in the emerging capacity of personal autonomy. However, this is not always the case; if one or both of these developmental premises is not sufficiently developed, their integration and resulting autodetermination is lacking. Our studies conducted in early 1990s empirically revealed four developmental patterns in adolescence specified by the relative levels of freedom and responsibility: autonomous (high/high), impulsive (high/low), symbiotic (low/high) and conformist (low/low). Very reasonable significant differences of other personality variables across the types were found. An attempt to replicate the results in 2005, however, failed: variables referring to general well-being and adjustment so strongly structured the sample (that reflects the social dynamics in our country through this period) that the autonomous pattern was the only one that pertained; the three others did not show up. These results seem to contribute to the SDT construct of autonomy both as explanatory one and as a target of special research.

22. Autonomy support: Mothers’ and fathers’ relative contribution to their adolescent’s emotional and behavioral functioning
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Co-authors: Lessard, Joannie; Carpentier, Joëlle; Moreau, Elise; Mageau, Geneviève A.

Abstract:
Self-Determination Theory (Deci & Ryan, 1985, 2000) suggests that in their interactions with their children, parents should adopt autonomy supportive behaviors to promote optimal development. Autonomy support is defined as: (1) providing a meaningful rationale, (2) acknowledging the child’s perspective and feelings, (3) offering choices, and (4) minimizing the use of controlling techniques (Joussemet, Landry, & Koestner, 2008). Although many studies have shown the positive consequences of autonomy support for children (see Moreau & Mageau, 2010 for a review), few have investigated the influence of parental autonomy support on indicators of children’s psychological adjustment such as internalized or externalized problems. The main purpose of this study was thus to examine the impact of mothers’ and fathers’ autonomy support on the emotional and behavioral functioning of their child. A total of 262 adolescents (mean age = 14.50 years, 41.1% boys) reported their perceptions of parental autonomy support (P-PASS; Mageau et al., 2010) while their parents completed an inventory of children’s behavior problems (CBCL; Achenbach, 2001). Results showed that mothers’ and fathers’ autonomy support were negatively related to adolescent’s problematic behaviors (r = -.24. p <.05 and r = -.38, p <.05, respectively). However, when both mothers’ and fathers’ autonomy support were entered in regression analyses, only fathers’ autonomy support significantly predicted adolescents’ behaviors (D = -.01, p =.97 and D= -.38, p <.05, respectively). These results remained unchanged after controlling for socioeconomic status and children’s academic achievement. The theoretical implications of these results are discussed.
23. Coping With Academic Failure: Effects of Structure and Perceived Control

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Abstract:
Self-determination theory (SDT) can be used as a framework for understanding coping. SDT suggests that people have a need for competence (Deci & Ryan, 1985). Academic failure can impinge upon this need yet can be appraised as either a threat or challenge to competence. When failure is perceived as a threat, children are likely to use active coping and less likely to use rumination and blaming. Whether children perceive failure as a threat or challenge may be a function of their perceptions of control over outcomes (Skinner, 1995). It is important to identify what environments facilitate perceived control. One environmental dimension that may facilitate perceived control is structure, which is defined as clear relations between actions and outcomes.

This study assessed children’s academic coping and addressed: 1) are there direct effects of structure on coping? 2) does perceived control mediate the effects of structure? 114 children reported on their parents’ provision of structure in relation to school (Grolnick & Wellborn, 1988), perceived control (Skinner, Wellborn, & Connell, 1990) and academic coping.

Structure was positively associated with children’s perceived control. Children’s perceptions of control were positively associated with active coping, and negatively associated with rumination and blaming. Control perceptions fully mediated the effect of structure on active coping. While structure influenced children’s perceived control, which in turn affected rumination and blaming, there were also direct effects of structure on these two coping strategies. The results will be considered in terms of helping children develop personal resources that will facilitate effective coping.

24. Mediation effects of parenting goals on the relation between maternal perceptions of threat and psychological control

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Co-authors: Francis Ranger; Vanessa Kurdi; Kim-Claude Demers; Geneviève A. Mageau

Abstract:
Given the detrimental impact of psychological control for children’s development, numerous studies have been conducted to understand its determinants. Gurland and Grolnick (2005) argued that parental practices are influenced not only by parents’ personality but also by their cognitions. In particular, they showed that parents who perceive their children’s current and future environments as threatening are more likely to use controlling behaviors. Grolnick (2003) also suggested that contextual pressures, such as perceived threats, influence parents’ behaviors by changing parents’ focus (or goals) toward the outcome. In order to understand the psychological mechanisms that explain the impact of environmental threats on parenting practices, the present study examined the role of parental goals in the relation between maternal perceptions of threat and psychological control. A total of 130 mothers reported their perceptions of environmental threat (i.e., worry, instability, scarcity; Gurland & Grolnick, 2005), their goals for their child’s achievements (i.e., performance-approach, performance-avoidance, and mastery-approach goals; Elliot & Church, 1997), and their use of controlling behaviors (P-PASS, Mageau et al., 2010). Following Baron and Kenny's (1986) procedure, regression analyses were conducted to test mediation effects. Results showed that both types of performance goals partially mediate the relation between perceptions of threat and psychological control, while controlling for various covariables (e.g., self-esteem contingencies and trait anxiety). However, perceptions of threat did not predict mastery-approach goals. The theoretical implications of these results are discussed.
25. The SDT-based programs for parents in Estonia – the key to achieve the efficiency in juvenile offender rehabilitation

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Abstract:
The Estonian case analyze (2009) proved, that SDT concepts are important topics of parenting. In 2007 was the SDT-program for Estonian juvenile offenders’ parents conceptualized and in 2009 the analyze finished (Saame, 2009)

26. The influence of social support, emotional intelligence, and self-conscious emotions, on school motivation

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Co-authors: Isabelle Green-Demers

Abstract:
The present study was interested in the social and emotional antecedents of school motivation. Specifically, the goal of the present project was to examine the interrelations between the interpersonal style of key social figures (i.e., teachers, parents, and friends), and the emotional intelligence, self-conscious emotions, and self-determination of high school students. Participants (N=500) completed a questionnaire package comprising the Interpersonal Behavior Scale, the Schutte Emotional Intelligence Scale, the Test of Self-Conscious Affect for Adolescents, and the Academic Motivation Scale. Results largely corroborated research hypotheses. Support from teachers, parents, and friends, was positively associated with emotional intelligence, propensity for guilt, and school motivation. Social support was also negatively associated with propensity for shame. Emotional intelligence, in turn, was positively associated with propensity for guilt and school motivation. Propensity for guilt was positively associated, and propensity for shame negatively associated, with school motivation. Contrary to expectations, emotional intelligence was not associated with propensity for shame. Results are discussed in terms of their implications for educational research and intervention.

27. Perceived Family Road Safety Climate and Perceptions of Parents among young drivers – A Self-Determination Theory Perspective

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Abstract:
As part of the efforts to understand why young drivers are more at risk for involvement in crashes than any other age-group, attention has recently turned to the effects of family. The current study seeks to further understanding the nature and elements of the family influence, relying on the Self-Determination Theory. It examines the associations between perceived family road-safety climate on one hand, and the perception of parents’ involvement, autonomy support and warmth, on the other. One hundred and fifty young drivers (aged 18-21) were asked to complete questionnaires assessing their family road-safety climate, using a new structured measure (FRSCQ), and perceptions of parents, using the POPS (Grolnick, Deci, & Ryan, 1991), adapted for adolescents by Robbins (1994). The results show significant associations between the family road-safety climate and perceived optimal parenting, as it is conceptualized by the SDT. Thus, the more involved, autonomy supportive and warm mothers and fathers are perceived to be, the higher is their involvement in teaching and enhancing safe driving, the more positive is the model they provide for safe driving, the more comprehensible and clear messages regarding responsibility for keeping road safety they deliver, the greater openness and positive communication regarding safety
issues are conveyed, and the higher responsibility do the young drivers willing to take upon themselves. The results are discussed in respect to the relationship between the general social context parents provide, and the values, messages and actual behaviour they hold regarding safe-driving. The associations found may highlight the need to enhance parents’ involvement in safety issues of their teenage children in order to moderate risky and reckless behaviour in the early stages of independent driving.

28. Interparental conflict and marital commitment of parents: Effects on adult children’s desire to marry
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Abstract:
What do grown-up children think about the relationship between their parents, and how does it reflect in their own life? The aim of this study is to investigate the effects of interparental conflict and marital commitment of parents on the desire to get married in grown-up, single children by using the image of marriage as a mediator. Participants were 402 Japanese young adults (mean=30.0 years, SD=4.8). Data were collected through an internet survey. Both males and females with a more positive image of marriage had a stronger desire to get married. In males, interparental conflict had a negative effect on the desire to get married. On the other hand, in females, those that recognized her parents had strong “whole acceptance of being / one and only,” a factor in marital commitment, had a stronger desire to get married. Furthermore, marital commitment of parents was directly related to the desire to get married as well as indirectly mediated through the image of marriage.

29. Toward a Better Understanding of Adolescent Autonomy: An Examination of the Motives for Independent vs. Dependent Decision-Making
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Abstract:
The concept of autonomy figures prominently in various psychological frameworks. However, current findings regarding the role and importance of autonomy in adolescence vary considerably, primarily due to a lack of conceptual clarity. In developmental psychology, autonomy is traditionally defined as independence or self-reliance, which is contrasted with dependence or reliance on the parents. However, SDT conceptualizes autonomy as volitional functioning, which refers to the extent to which one behaves on the basis of self-endorsed values, interests and needs. The opposite is controlled functioning, where individuals feel pressured to meet internal or external demands. As a consequence, adolescents can either choose to act independently, or feel pressured to do so. Likewise, they can depend on their parents volitionally or because of controlled reasons. In the present study, we focused on decisional independence (i.e., who decides about certain issues, parents vs. adolescent). Consequently, we assessed the motives for deciding independently, and the motives for dependent decisions, reflecting volitional (or identified), introjected and externally regulated motives. As hypothesized, volitional motives for independent as well as dependent functioning were positively associated with adolescent psychosocial functioning, whereas controlled motives related negatively. Interestingly, motives for independence vs. dependence predicted different outcomes, with motives for independence being associated with well-being and intimate functioning, and motives for dependence relating to well-being and problem behavior. Furthermore, the relation with problem behavior was fully mediated by rebellion. These results point to the importance of the developmental as well as the SDT perspective, in understanding adolescent autonomy.
30. Sociocultural affordances and participant experience: Supporting positive outcomes in diverse youth-serving settings
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Co-authors: Jeffrey N. Jones; Joshua H. Bench

Abstract:
Self-determination theory has been applied in diverse domains and addresses how internal needs and motivations have a reciprocal relationship with social conditions. This provides a framework for understanding how positive outcomes can result from alterable features of proximal environments. This presentation synthesizes findings from a series of mixed-methods studies of relationships and engagement in youth-serving settings. In each study, adolescents describe basic needs and processes of cognitive evaluation and organismic integration. This provides a unique opportunity to examine variation across settings in terms of the constructs and processes of self-determination, and how these lead to differential program and developmental outcomes. The methods of inquiry are similar in the three studies presented. All are informed by a social-cognitive perspective and contemporary efforts to integrate mixed methods in research design. PeaceJam is an organization that inspires youth to identify a pressing local issue, and conduct a social action project to affect positive change in their communities. The second case is Monroe High, a high functioning alternative school that finds success through careful attention to students’ developmental needs. The third setting that we draw from is an urban afterschool program. Youth in these studies describe different paths to the positive outcomes, but identify central features of the organizational, instructional, and interpersonal environment as instrumental in their changes. Through these studies, we have found self-determination theory as salient to and consistent with youth experience. Their voices detail how attention to basic needs, and relational scaffolding can help youth examine orientations and internalize prosocial values.

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Abstract:
Parental contingent self-worth is characteristic of parents whose ego is involved in their children’s performance, such that their self-worth strongly covaries with their children’s behavior. There are two sides to this phenomenon, referred to as success-oriented and failure-oriented contingent self-worth, respectively. First, when their child performs well, parents can experience a strong boost in their self-esteem and display a self-aggrandizing attitude. Second, when their child performs poorly, parents’ self-worth can plummet and parents can experience a sense of personal failure. The aim of this study is to validate a recently developed measure of parental contingent self-worth (Assor, 2007). In a sample of 313 families, we first evaluated the psychometric quality of this measure. Factor-analysis showed that both a 1-factor solution and a 2-factor solution (distinguishing between both types of contingent self-worth) yielded a good representation of the scale’s internal structure. We computed both a total score and separate scores for the two components of contingent self-worth, each with high reliabilities. To externally validate this measure we first examined associations with parental perfectionism. In line with the expectation that perfectionist parents hinge their self-esteem on their children’s performance, strong positive associations were found between dimensions of perfectionism and the dimensions of parental contingent self-worth. Finally, we examined associations with measures of controlling and autonomy-suppressing parenting. Parental contingent self-worth was primarily related to both parent- and adolescent-reports of psychologically controlling parenting. Together, the findings suggest that this scale is a useful instrument for future research on the dynamics involved in controlling parenting.
FOURTH INTERNATIONAL CONFERENCE ON SELF-DETERMINATION THEORY

32. Pressure from below: The relation between youngsters’ externalization problems and teachers’ educational practices

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Abstract:
It has been well established that controlling socialization agents have exacerbating effects on difficult children (ex.: Patterson, 1982). Furthermore, offering an optimal learning context which SDT conceptualizes as providing structure, involvement and autonomy support might be especially challenging when facing teenagers with behavioral problems (e.g.: Grolnick, 2000; Jelsma, 1982). This study investigated how externalized and internalized difficulties of maladjusted adolescents relate to teachers’ educational practices. The study took place in integrated schools of youth social rehabilitation centers in Montreal. Participants were 115 French-speaking teenagers (12-17 years old). They completed a questionnaire to rate their teachers on the dimensions of psychological control (Mageau & al., 2008, Jang & al., 2009), autonomy support (Mageau & al., 2008), structure, and involvement (Belmont, 1988). Teachers rated the extent to which teenagers experience externalized and internalized difficulties (Conners, 2000) Correlational analysis reveal that adolescents’ oppositional behaviors were negatively related to autonomy support, involvement, and structure (r = -.25; r = -.37, r = -.42, all p < .01) from teachers. Opposition was also related to more psychological control (r = .43, p < .01). Similarly, a negative correlation was found between adolescents’ emotional lability and teachers’ provision of structure (r = -.22, p < .05). Interestingly, cognitive problems were related to less structure and involvement (r = -.30, p < .01; r = -.19, p < .05) and more psychological control (r = .26, p < .01). Teenagers’ social or anxiety problems were not related to any educational dimension. This study highlights that it seems especially difficult to provide an optimal learning environment to youngsters when they display externalized difficulties.

C4: EDUCATION

33. Predicting students’ subjective well-being: The role of teacher behaviours and psychological need satisfaction

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Abstract:
A UNICEF (2007) report comparing child well-being across 21 economically advanced nations found the lowest levels of subjective well-being to be reported by children in the UK. As such, in the present work we employed a prospective design to examine the role of teacher behaviors and psychological need satisfaction in predicting the subjective well-being of UK school students. Across a school term, 474 secondary school pupils (M age = 11.39; SD = .51) completed self-report measures of perceptions of teacher behaviors (teacher autonomy-support and provision of structure) (Time 1), psychological need satisfaction (autonomy, competence, and relatedness) (Time 2), and subjective well-being (indexed by positive and negative affect, life satisfaction, and vitality) (Time 3). Results of simultaneous multiple regression analyses supported both student perceptions of teacher autonomy-support (β = .32, p < .01) and teacher provisions of structure (β = .10, p = .06) as positive predictors of composite need satisfaction. In turn, need satisfaction was found to be positively related to subjective well-being (β = .51, p < .01). Further, mediation tests using Baron and Kenny’s (1986) four step methodology supported psychological need satisfaction as a partial mediator of the association between student perceptions of teacher behaviors and their reported subjective well-being. Findings from this work advocate the benefit of autonomy-supportive teacher behaviors and the provision of structure in the classroom for encouraging student need satisfaction and subjective well-being. Results also provide support for the mediatory role of psychological need satisfaction. Implications for practice and future work will be discussed.
34. The role of SDT in explaining teachers’ motivation to continue to use e-learning technology
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Co-authors: Hallgeir Halvari, Vebjørn Flaata Gulli, Roar Kristiansen

Abstract:
Based on self-determination theory, this study proposes an extended information systems (IS) continuance theory in the context of teachers’ utilization of e-learning technology in connection with on-site courses. In the proposed model teachers’ extrinsic motivation (i.e. perceived usefulness), confirmation of pre-acceptance expectations and intrinsic motivation are predicted to be influenced by perceived autonomy, perceived competence and perceived relatedness. The proposed model was empirically tested in the context of e-learning use by university college teachers. The empirical data were obtained through mail questionnaires distributed to 430 teachers of 12 university colleges. We found support for seven out of ten added hypotheses in our self-determination theory extended IS-continuance model. The obtained results suggest that at least two of our four added variables from the self-determination theory are important in explaining teachers’ e-learning continuance intention. Thirty-seven percent of the teachers’ intentions to continue their use of e-learning were explained by their e-learning motivation. More specifically, 22% of the variance was explained by identified regulation (i.e. perceived usefulness) and 15% was explained by intrinsic motivation. Moreover, teachers’ perceived satisfaction of their own e-learning competence need explained, respectively, 15%, 19% and 20% of the variation in identified regulation, confirmation and intrinsic motivation. Finally, teachers’ perceived satisfaction of their own need for autonomy explained 10% of the variation in teachers’ intrinsic motivation. Based on these findings, the main theoretical implication is that an extension of IS-continuance theory with constructs that represent users’ basic psychological needs and intrinsic motivation has merit.

35. Adaption and validation of a set of German versions of scales measuring self-determination within a sample of German school children
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Abstract:
Introduction: Even though interest in self-determination within educational contexts has significantly grown over the past years in Germany (Krapp & Ryan, 2002), to date, hardly any validated German questionnaires exist useable within this context. Method: In order to fill this gap, we adapted the following set of scales to educational settings with respect to the use among young school children, and translated them into the German language: “Basic Psychological Needs Questionnaire”, “Perceived Competence Scale”, “Self-Regulation Questionnaire – A”, and “Learning Climate Questionnaire”. These German versions were evaluated regarding psychometric properties and validated within a large sample of 800 German school children aged 8 to 13 years. Results: On an item level, all translated scales proved for adequate discriminatory properties and difficulty levels, on a scale level they proved for good to very good internal consistencies (Cronbach’s Alpha). Convergent validity was established by positive correlations with construct similar scales, such as scales measuring autonomy, self-efficacy, or school climate. Divergent validity was assessed by the correlation with less construct similar scales measuring school anxiety, attributional stiles, and boredom in school. As expected, the correlations between our translated scales and the divergent scales were significantly lower than those obtained with convergent scales. Conclusion: Comparable to data on the original versions (Williams & Deci, 1996; Ryan & Conell, 1989; Black & Deci, 2000; Harter, 1982), our German adoptions and translations of the explored scales demonstrated solid psychometric properties and showed promise as valid and reliable self-report scales within educational contexts among young school children.
36. Relationship between academic motivation and educational consequences in Japanese junior high school students: A 3-year longitudinal study
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Co-authors: Sakurai Shigeo

Abstract:
Autonomous motivation is significant in educational context (Deci & Ryan, 2002), because it is associated with positive outcomes such as academic performance. In Japan, despite the fact that large amount of research has been conducted on academic motivation (e.g., Hayamizu, 1997), little research has focused on changes in the motivation, and on the motivational effect on educational consequences across the school years. This research examined intraindividual changes in academic motivation for three years and the effects of motivational impact on both sense of academic fulfillment and academic performance in a junior high school. A total of three hundreds five participants answered a three times questionnaire in 7th, 8th, and 9th grade. We revealed that students’ autonomous motivation, which was composite score of intrinsic regulation and identify regulation, decreased from 7th to 8th grade. On the other hand, controlled motivation, which was composite score of introjected regulation and extrinsic regulation, increased from 7th to 8th grade. Additionally, the multiple regressions indicated that (1) identify regulation in 7th predicted a sense of academic fulfillment across the following 2 years and also academic performance in 8th, and that (2) introjected regulation in 7th predicted to academic performance in 8th. It was unique result that effect of introjected regulation on the academic performance and increase of controlled motivation in Japanese junior high school students.

37. A self-determination theory approach to predicting high school dropout intentions: The role of intrinsic motivation and achievement
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Abstract:
Most studies on intrinsic and extrinsic motivation in the educational context show that autonomous motivation is positively related to academic achievement and persistence in different academic domains (Niemiec & Ryan, 2009). However, these relations have mostly been examined separately for each outcome. Moreover, while the relation of poor academic achievement has been well documented (Battin-Pearson et al., 2000), only a few studies have examined this as a factor mediating the effects of other variables, such as academic motivation. The present study investigated how different types of academic motivation, conceptualized from a self-determination theory perspective, predict school achievement, and intentions to drop out of school over time. We also hypothesized that school achievement would mediate the relation of self-determined motivation to achievement. Students (N = 249) from a French-speaking high school in suburban Montreal completed a questionnaire once a year for two years. Results revealed that, after controlling for time 1 school achievement, self-determined motivation was positively associated with time 2 school achievement. When types of motivation were analyzed separately, the only significant predictor of time 2 achievement was intrinsic motivation. Finally, a significant meditational model emerged. As hypothesized, intrinsic motivation was positively related to time 2 school achievement, which was in turn, negatively related to time 2 dropout intentions. Overall, this study highlights the importance of intrinsic motivation in the promotion of school achievement and persistence. It also points to the value of examining the mechanisms through which academic motivation influences students’ behavioural intentions.
38. An Exploratory Study of Learning Climate in a Turkish University
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Abstract:
Self-determination theory (SDT) asserts that when the three basic psychological needs of people are met in an environment, it leads to higher motivation. This is undoubtedly true for learning English as a foreign language especially if students live in a country where the only opportunity to learn and practice English is the classroom. Approaching language learning from SDT perspective may shed light on how learners of English feel in the classroom environment. This study aims to investigate whether the three basic needs of learners, enrolled in Anadolu University School of Foreign Languages in Turkey, are met. The participants (n=300) from different language levels and majors are given the Learning Climate Questionnaire (a 15 –item 5-point Likert Scale) in Turkish. The analysis of the data may reveal to what extent the three basic needs of the learners are met. The results may also provide valuable insights into the needs that teachers should put more effort in improving them for better.

39. The Role of Individual Factors and Learning Environments for the Quality of Students’ Motivation
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Abstract:
The present study is based on the data from the accompanying research of the education development project Innovation in Mathematics, Science and Technology Teaching, which is evaluating pupils’ and teachers’ intrinsic motivation and self regulatory styles in relation to the basic conditions at school. The participants were 1992 students in grades 5 to 9 and their teachers (N=89). Data involves interest in the respective subject area, perceived everyday relevance of contents, perceived support of basic psychological needs as well as motivational styles at the student level as well as teachers’ self-evaluation and basic conditions at school at the class level. A multilevel analysis showed substantial variance to be located at the class level. Except for basic needs the ratio of girls and the basic conditions at school predicted students’ motivational style at the class level.

40. Motivation for Learning English: An Exploratory Study of Motivational Orientations in a Turkish University
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Abstract:
Learning English as a foreign language may be challenging for many students especially if they live in a country where English is spoken only in language classrooms. Considering the role of motivation in language learning, it may be assumed that these learners will most probably have instrumental motivation, i.e. learning English to achieve a practical goal such as meeting the requirements for school or applying for a job. However, approaching this issue from self-determination theory (SDT) perspective may prove more beneficial and comprehensive explanations in understanding the type(s) of motivation the above-mentioned learners may have. According to SDT, there are two general types of motivation –intrinsic (IM) and extrinsic (EM)- and they lie along a continuum with IM on one end and amotivation on the other end. The purpose of this study is, then, to explore the types of motivation of learners for learning English as a foreign language at a Turkish state university and also to find out whether their motivation varies across different language
levels and majors. The study also aims at assessing the reliability and validity of the Language Learning Orientations Scale (LLOS) in Turkish. The analysis of the data suggests that learner motivation to learn English in Turkey can be validly assessed using LLOS and the self-determination continuum proposed by SDT. The data also reveals that learner motivation differs across levels and majors, which provides valuable insights into possible actions that may promote a move from EM towards IM.

41. Exploring patterns in learning and motivation: combining a variable oriented and a person oriented approach

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Abstract:
During the last decades both learning and motivational research traditions have developed new or improved theoretical models and instruments, such as the learning pattern-model (Vermunt & Vermetten, 2004) or self-determination theory (Deci & Ryan, 2002). Studies combining recent insights from various learning and motivational research traditions into one research model and investigating their interrelationship, are however scarce. Moreover in both research domains, the use of variable-oriented data-analysis techniques is dominant. Person-oriented data-analysis techniques, aiming at categorizing individuals into groups with similar learning or motivational profiles, have received far less prior attention (Magnusson, 1998). The current study aims at exploring the relation between the learning pattern model and self-determination theory, thereby combining a variable oriented and a person oriented approach. The study was set up with 571 freshmen-students in higher education. In a first steps the relationship between dimensions of learning and motivation were explored using a MANOVA and MANCOVA (variable oriented perspective). Next learning profiles were identified, using cluster analysis (person oriented perspective). Six learning profiles were found, two of which were considered to be groups of at-risk students. Finally multinomial regression analyses were used to investigate the relationship between motivational dimensions and learning profiles (combined perspective). Results indicate a significant relationship between autonomous motivation and deep learning. Dimensions depicting a lack of learning and motivation were also closely related. Motivational dimensions proved to be strong predictors of learning profile membership. Contrary to expectations and results from the variable-oriented analyses, amotivation did not significantly predict membership of the at-risk profiles.

42. Teacher autonomy support and students’ autonomous motivation

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Abstract:
The aim of the study was to examine the perception of teacher autonomy support on students’ motivation. Te first hypotheses was that a high level of autonomy support influences positively the identified regulation and intrinsic motivation. The second hypotheses was that external factors of resilience is a predictor of autonomy support. The participants were 887 students from secondary school of Serenio (Italy, Monza – Brianza). In order to verify the hypothesis were used: Learning Climate Questionnaire (Williams & Deci, 1996), Self Regulation Questionnaire – Accademic -Standard Version (Ryan & Connel, 1989), Measuring Resilience and Youth Development (Hanson & Kim, 2007), Connor-Davidson Resilience Scale (Connor & Davidson, 2003). The results showed that there were positive correlations among Autonomy support and identified regulation and intrinsic motivation. We constructed a structural equation model to test the key hypothesis. The model was tested using maximum likelihood. The Root Mean Square Error of Approximation (RMSEA)
was.023, Chi-square was 4,451 (df=3), the Normed Fit Index (NFI) was.998, and Goodness Fit Index (GFI) was.999. Overall, these indices suggest that the final model matches the data. The key finding was that teacher autonomy support was a strong predictor of student’s identified regulation and that external factors of resilience had indirect effect on identified regulation, mediated by internal factor of resilience.

43. Students’ motivation and the perception of psychological needs in reformed study programs

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Abstract:
The last decade brought extensive changes to the organization of higher education in Europe. Although most of these reforms had been directed on the enhancement of the comparability of academic outcomes and academic degrees across countries, it seems most likely that learning processes and motivational processes have been affected to a great extend. With respect to Self-Determination Theory some of these changes might have a negative impact on the experience of self-determination, the development of individual interests and intrinsic learning motivation and the quality of learning behaviour. During several years of university reform, both, traditional and reformed study programs had been conducted on the same universities. In our study (N=300 first and second year university students) we compared students enrolled in traditional and reformed programs with respect to their experience of basic needs and the quality of their motivation to learn in different fields of study. Our results indicated no positive side effects of these reforms in higher education on students’ learning processes. To begin with, students in reformed programs leading to a bachelor-degree showed none or only little benefits concerning the experience of psychological needs. Expanding the focus on the motivational regulation, the effects of university reform on student learning seem to be adverse. Students in reformed programs show less intrinsic motivation than their fellow students in traditional programs, especially in the case of second-year-students. Considering self-regulated life-long learning and its motivational foundations some substantial changes in university teaching and assessment procedures need to be discussed.

44. Effects of Student-Centered vs. Lecture-Based Learning Environments on Student Motivation: A Self-Determination Perspective

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Abstract:
This study examines the effects of a student-centered (i.e., problem-based learning or PBL) versus lecture-based environment (LB) on undergraduates’ study motivation from a self-determination perspective. PBL is considered a student-centered educational method, because students work in small groups on meaningful problems. PBL has several elements that could be considered autonomy supportive: tutor guidance instead of direction, greater study responsibility, and the challenging/meaningful tasks that were hypothesized to facilitate perceived competence. Several motivation questionnaires such as the Learning Self-Regulated Questionnaire, Achievement Goal Questionnaire, and the Perceived Competence Scale were used to measure student motivation. Results demonstrated that PBL students (n = 117) showed more perceived competence than lecture-based students (n = 126) [F(1, 226) = 9.76, p <.01, &#951;² =.04] and more competence expectancy [F(1, 226) = 18.04, p <.001, &#951;² =.07]. LB students showed more instrumental motivation [F(1, 226) = 16.84, p <.001, &#951;² =.07]. However, contrary to the hypotheses no
significant differences were found on measures of autonomous and controlled motivation. Analyses of a focus group study further indicated that active learning aspects, typically for PBL environments (such as collaboration) are perceived as motivating. On the other hand, students described some specific elements of this PBL curriculum as restrictive or directive (i.e., mandatory presence and inflexibility in the use of PBL). In conclusion, students from the PBL and LB environments under study seem to differ on some motivational dimensions. This finding is interesting for the future design of learning environments.

45. Learning Motivation in Teacher Education: Profiles of Emotional Experiences and their Impact on Self-Determined Motivation

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Abstract:
The relationship between self-determined motivation and the fulfilment of the basic needs is well documented: The more a learning environment facilitates the satisfaction of the basic needs, the more likely self-determined motivation is experienced. Relatively little empirical evidence exists on possible patterns of the experience of autonomy, competence, and relatedness and the impact of such experience-profiles on different types of motivation. The aim of this contribution is to identify such latent profiles and analyse their relationship to different types of motivation. In a quantitative study, N = 345 future teachers were surveyed in lectures dealing with relevant psychological topics (e.g. theories on learning and motivation). Concerning the students’ emotional experiences, different components were distinguished: The experience of competence, two different autonomy-facets (procedural/cognitive autonomy) and two relatedness-facets (teachers/fellow students as reference groups). Additionally, the students amount of interest, commitment, and their perception of the level of challenge were measured. Regarding the learning motivation self- and nonself-determined types of motivation were analysed. The results obtained via LCA revealed a three class solution for the description of different profiles of students’ emotional experiences: Class 1 is characterised by a high level of autonomy, competence and relatedness (teacher), Class 2 by a rather medium and Class 3 by a low level of these variables. Only small differences between the latent classes were found for the relatedness (fellow students) and the subjective level of challenge. Subsequent variance analyses confirmed the expected differences between the experience-profiles and the types of motivation reported.

46. Teacher’s resilience, a motivation affair

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Abstract:
Teachers live a lot of stress, an international problem. We well know the external causes: overload classroom and administration tasks, lack of support, more violent and less motivated students are all predictors of distress, burnout and leave. Retention and resilience could help to stop workforce haemorrhage. But resilience is a confuse concept essentially focused on resistance, a short term solution. Because the stress is a variable so subjective, modifying working conditions is not enough to prevent distress and burnout. Some worker can stay in an aversive environment and another one will never endure it. Self Determination Theory (SDT) could help understand the difference between those that make a real resilience and those that just hold the inevitable. In that way, we could better predict the healthy resilience and the others similar to resistance. A study on 542 primary and secondary teachers in Quebec is lead to associate resilience with SDT. Preliminary analyses by ANOVA show differences of resilience between high and low resilient teachers. Others variables will be evaluate in regression with the resilience process to distinguish between what we call intrinsic and extrinsic resilience.
C5: SPORT AND EXERCISE

47. Coaches, peers and parents Autonomy Support in Young Athletes Motivation
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Abstract:
The influence of relevant others, and their Autonomy Support has been shown as determining for individuals to integrate more autonomous forms of regulation and even to facilitate intrinsic motivation (Ryan & Deci, 2000). In sport domain, coach and parental motivational climate have been related with perceptions of autonomy, relatedness and identified regulation, as well as negatively related with amotivation (Gagné, Ryan & Bargmann, 2003). In the present study we attempt to analyze relations and influence of coaches, peers and parents’ Autonomy Support in young athletes Motivation. Participants: 278 young athletes’ age ranged from 9 to 19 (M = 13.64; s.d. = 1.67) from 7 different sports. Measures (Spanish versions of): a) Behavioural Regulation in Sport Questionnaire (BRSQ; Lonsdale, Hodge & Rose, 2008). Intrinsic Motivation, Integrated Regulation, Identified Regulation, External Regulation and Amotivation. b) Sport Climate Questionnaire (SCQ; Deci & Ryan) originally used to assess athletes perception of coaches’ Autonomy Support and adapted in this study to evaluate peers and parents’ climate too. Results showed that perceptions of Autonomy Support from coaches, peers and parents positively correlated with Intrinsic Motivation, Identified and Integrated Regulation. Coaches, peers and fathers autonomies support climate also correlates negatively with amotivation. Further regression analyses indicated that coaches in first place but also father’s Autonomy Support would predict athlete’s Intrinsic Motivation, as well as Integrated Regulation (also influenced by peers) and Identified Regulation. Amotivation would be negatively predicted by Coaches’ Autonomy Support.

48. Validation of the Revised SMS
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Abstract:
Although the original Sport Motivation Scale (SMS) has generally demonstrated acceptable validity and reliability in many previous studies since its publication in 1996, this scale has been the object of some controversy recently, and a revision of several of its items was necessary. The objective of the present study was to examine the construct validity and reliability of a revised version SMS that includes several new items as well an integrated regulation subscale. The revised SMS was administered in combination with a number of dependent variables designed to further examine the construct validity of the subscales and more specifically the integrated regulation subscale. Information on the validity and reliability of the old and the revised SMS will be presented and discussed.
49. Relationships between university students’ exercise motives and physical fitness

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Abstract:
Purpose: Previous research has found that intrinsic motivations for exercise are positively associated with various exercise behaviors. The purpose of this study was to examine relationships between motives for exercise and fitness levels in college students. It was hypothesized that more intrinsic forms of motivation would be positively associated with fitness levels. Method: Exercise motives of students participating in university physical activity classes (n=194) were assessed using the Motives for Physical Activity Measure – Revised (MPAM-R) and the Behavioral Regulation in Exercise Questionnaire 2 (BREQ-2). Aerobic fitness was assessed using the PACER run test, and body composition was assessed using hand-held bioelectric impedance analyzers. MPAM-R and BREQ-2 subscales were regressed onto the two fitness measures. Results: For the MPAM-R, the overall models were significant for both aerobic fitness, $R^2=.29$, $p<.001$, and body composition, $R^2=.25$, $p<.001$. Competence and social motives were significant positive predictors, and appearance motives were significant negative predictors, of fitness level. For the BREQ-2, the overall models were significant for both aerobic fitness, $R^2=.10$, $p<.001$, and body composition, $R^2=.10$, $p<.001$. Intrinsic motivation was the only significant positive predictor of fitness, and introjected regulation was the only significant negative predictor. Conclusions: More intrinsic forms of motivation (IM, enjoyment, competence) were found to be positively associated with fitness levels, and external motives (appearance, introjected) were negatively associated with fitness. Fit individuals likely have an enhanced sense of competence in fitness endeavors, contributing to more intrinsic forms of motivation. Conversely, less fit individuals seem to be motivated by improving their appearance and gaining approval from external sources.

50. The effects of an autonomy supportive exercise intervention on changes in vitality: A Norwegian RCT among 70+ elderly

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Abstract:
The current study examined whether an autonomy supportive training intervention would generate changes in participants’ motivational regulation (autonomous & controlled), perceived competence and vitality. Regulation of motivation and perceived competence as mediating mechanisms of intervention effects on vitality were also examined. One hundred and twenty five elderly (Mean age = 74.4 yrs, 65% females) taking part in a randomized controlled trial in Norway were randomised to a 14 week functional strength group, an aerobic group, a specific strength training group, or a wait-list control group, respectively. Participants exercised 3 sessions per week. For the current purpose, 5 weeks pre to post intervention data was analyzed. Repeated-measures MANOVA yielded a significant interaction effect for group x time, indicating that the intervention groups changed more over the 5 weeks than did the control condition. Repeated-measures ANOVAs yielded significant group x time interactions for perceived competence ($F(4,125 = 3.33$, $p<.05$) and for vitality ($F(4,125 = 4.24$, $p<.01$), whereas the effects for autonomous and controlled regulations were non-significant. Stronger changes were observed in perceived competence in the aerobic and functional training groups compared to the control group. Moreover, a stronger change in vitality was found in the aerobic group than in the specific strength training group and the control group. A Bootstrapping procedure indicated that changes in autonomous motivation and perceived competence mediated intervention effects on change in vitality, whereas controlled motivation did not. The results supported the SDT perspective as applied to physical training and vitality among elderly.
51. Predicting Sport-Education Conflict Among Elite Athletes: The Influence of Contextual Motivation and Perceived Autonomy Support

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Abstract:
The purpose of the present study was to assess the motivational predictors of sport-education conflict among elite level athletes. Drawing on theoretical tenets of Self-Determination Theory, the impact of contextual motivation and perceived autonomy support from sport coaches and academic lecturers on specific forms of conflict was examined. Participants were 143 elite student-athletes studying full-time at a university in the East Midlands, England. The sample consisted of 77 males and 66 females participating in nine different sports (age range 18 to 28 years, M = 21.51, SD = 2.12). Self-report measures were obtained for contextual motivation in sport and education, sport-education conflict, and perceived autonomy support from coaches and lecturers toward academic studies and sport respectively. Results of hierarchical multiple regression analyses showed that both time-based and behaviour-based sport interference with education were negatively predicted by self-determined academic motivation, whereas strain-based sport interference with education was negatively predicted by self-determined sport motivation. Perceived autonomy support was reported to be greater from coaches than lecturers but was not found to play a significant role in the experience of conflict between sporting and academic pursuits. Findings suggest that specific forms of conflict between two important life domains may be influenced by the degree to which motivation in these domains is self-determined.

52. The relationships between risk perceptions and intention to participate in physical activity among older adults: the mediating role of identified regulation

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Abstract:
Understanding the determinants of physical activity (PA) among older adults is an important avenue of research. According to recent studies based on the Health Action Process Approach (Schwarzer, 2008), risk perceptions - i.e. the individual beliefs about the likelihood that a health problem will be experienced- plays a crucial role for intention to participate in PA among older adults (Renner et al., 2007). However, little is known on the process through which risk perceptions contribute to intention formulation. Being motivated out of identified regulation, i.e. when the behavior is chosen because it is perceived as personally important and useful (Deci & Ryan, 2000) could be a potential explanatory mechanism of the relation between risk perceptions and intention to participate in PA. It was hypothesized that higher perceived risk of suffering from diseases leads to higher levels of identified regulation, which in turn contribute to higher intention to participate in PA. Participants were 289 older individuals (Mean Age= 64.68 years, SD= 2.70) members of the French Federation of Sport Retirement, which were administered measures of risk perceptions for different diseases, motivation for PA, and intentions to perform PA. Multiple regression analysis revealed that identified regulation completely mediates the contribution of risk perceptions on intention. Thus, higher levels of perceived risk of suffering from diseases and health problems lead to higher intention to participate in PA, because it induce a motivation to engage in PA because the activity is important and useful to obtain some valued ends, such as maintaining health.
53. Comparing two self-determination theory models to predict physical activity
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Abstract:
When testing Self-Determination Theory models in the health domain, there seems to be disagreement regarding the placement of perceived competence. Specifically, two models have been tested - a theoretical model and a process model proposed by G.C. Williams. In the theoretical model, perceived competence is a predictor of the types of motivation, while it is predicted by self-determined motivation in the process model. Since no studies, to our knowledge, have tested both of these models simultaneously, the purpose of this study was to compare these models. University students (n = 225) completed an online questionnaire assessing autonomy support, psychological needs, types of motivation, and physical activity. Path analysis was used to test the models. The theoretical model was supported as autonomy support predicted each psychological need which in turn predicted self-determined motivation and negatively predicted amotivation and non self-determined motivation. Only self-determined motivation predicted physical activity (beta =.34; R2 = 12%). The process model was also held as autonomy support predicted autonomy and relatedness, with both needs predicting self-determined motivation positively and non self-determined motivation negatively. Self-determined motivation predicted perceived competence. Only self-determined motivation (beta =.25) and perceived competence (beta =.16) predicted physical activity (R2 = 14%). The model fit indices were nearly identical for both models. Although both models are quite similar, the process model explained slightly more variance in physical activity (2%). Therefore, it may be important to further investigate the placement of the needs in future models attempting to predict physical activity behaviour.

54. Motivation in practising sport among high school students in North Eastern Italy: Italian validation of MPAM and BREQ scales
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Abstract:
Recent researches (Rees et all, 2006) (Brunton et all 2003) show that adolescents are migrating to sedentary life styles: who starts a sport activity in the childhood, usually become sedentary at the starting point of the adolescence, causing a sort of moral panic (Biddle, 2006) about adolescents habits. It is then fundamental to develop and maintain a high level in sport practising in order to evaluate causes that motive adolescents to play sport (Gould, 1982). In fact, it is well established that approaches based on teacher/community recommendation are not sufficient to improve adhesion to active life styles and that more insights are required on adolescents psychology and their behaviour. We utilized Self Determination Theory to find whether there are different motivation degrees concerning internalization, integration and regulation in sport activity, and analysing, at the same time, contextual factors and extrinsic motivations. We built a specific questionnaire using different scales (Motivation for Physical Activities Measure, MPAM, by Frederick and Ryan, 1993) and (Behavioral Regulation in Exercise Questionnaire, BREQ, by Mullan, Markland and Ingledeuw, 1997) in order to evaluate respectively motivation and regulation in exercise. It was done a back translation in Italian, allowing to administer our questionnaire to more than 2000 North Western Italian high school students. In this paper we present psychometric properties of the Italian version of the scales, the correlations among MPAM, BREQ and the kind of physical activity played by our sample.
55. Athletes’ Intrinsic Motivation in Training versus Competition
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Abstract:
Objectives: The objectives of this study were to examine whether athletes’ intrinsic motivation a) varied across training and competition, and b) was predicted differently by achievement goals and perceived motivational climate within each context. Design: Cross-sectional. Method: Participants were 410 (362 males, 48 females; mean age = 21.11) football players, who completed questionnaires measuring enjoyment/interest, effort, tension, task and ego goal orientations, and perceived mastery and performance climate in training and competition. Results: Enjoyment/interest, effort, tension, ego orientation, and performance climate were significantly higher in competition than in training. Regression analyses showed that in both contexts, enjoyment/interest and effort were positively predicted by task orientation and mastery climate. Effort in competition was also negatively predicted by performance climate. In training, tension was predicted negatively by task orientation, and positively by performance climate. An interaction effect also emerged in training: when players perceived a high performance climate, tension decreased when ego orientation increased. The two contexts differently influenced the relationships between: mastery climate and enjoyment/interest, task orientation and tension, and performance climate and tension. Conclusions: The findings showed that athletes’ intrinsic motivation varies across training and competition and that in both contexts a task goal and a mastery climate are most beneficial for enhancing athletes’ intrinsic motivation. Our findings also indicate that the context may influence the effects of achievement goals and perceived motivational climate on intrinsic motivation. These findings may provide practitioners with insights to optimize athletes’ intrinsic motivation in training and competition.

56. Promotion of physical activity among the elderly: Does need-supportive coaching offer an added value to physical parameters?
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Abstract:
Despite the well established benefits of physical activity, there is still no consensus on how to optimally assist people in pursuing and maintaining physical activity. This study examined the relative impact of an individualized need-supportive physical activity coaching, based on the principles of the self-determination theory, compared with less intensive coaching procedures on several physical parameters. Participants were 557 elderly, i.e. 60 years or more, originating from four different regions in Flanders. They were randomly allocated to one out of three cumulative physical activity interventions, which all lasted 10 weeks: (1) a sport promotion intervention, which consisted of a clarification of and referral to the existing local physical activity opportunities; (2) a walking intervention, in which a prestructured walking program was explained in addition to the local opportunities; (3) an individualized need-supportive coaching intervention, in which a personal physical activity program was set up in consultation with each participant, supported with regular follow-up by phone or face-to-face. Physical parameters were measured at the beginning and after completion of the intervention. Significant improvements over time on various physical parameters indicate that all three intervention strategies were effective in the short-term. Although only few significant differences between the three intervention groups emerged, participants in the coaching group experienced more need support and showed nonsignificant tendencies to perform better on most of the physical parameters. A follow-up, 1 year after pretest, is planned to test our predictions that a more need-supportive coaching will lead to stronger effects in physical parameters in the long-term.
57. French Validation of the Behavioral Regulation in Sport Questionnaire (BRSQ) by adolescents.
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Abstract:
The purpose of this study was to validate a French version of the BRSQ to measure all factors of self-determined motivation by young people. This scale has demonstrated high psychometrical qualities in the sport context (Lonsdale, Hodge, & Rose, 2008). The transcultural validation procedure was based on Vallerand’s (1989) protocol: a translation, a pretest study, a large study for the experimental factorial analysis. Firstly, three sport psychologists with expertise in self-determination theory translated the BRSQ items into French. Secondly, 22 (10-12 y. old) children answered the French version of the BRSQ and evaluated the clarity of its items. Statistical analysis permitted to retain 26 valid items. Thirdly, a study involving 601 (12-14y. old) children examined the construct validity of the translated version of the BRSQ through the use of a confirmatory factor analysis. The result was a 18-item French version of the BRSQ, with three items for each subscale. The CFA demonstrated good fit indices ($\chi^2/dl = 4.17$, RMSEA = .07, ECVI = 1.40, NFI = .94, CFI = .96, GFI = .97). Within each subscale, item loadings ranged from.62 to.80. The interfactorial correlations express a simplex matrix, revealing a high construct validity of the French version. Despite these results, there is the need to pursue our work to increase the number of items per dimension and to improve the reliability of the introjected regulation and external regulation subscales.

58. The relationship of multidimensional exercise amotivation with exercise stages of change among Greek adults
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Abstract:
The aim of the present study was to examine the relationship of multidimensional exercise amotivation beliefs with the exercise stages of change (pre-contemplation, contemplation, preparation, action, and maintenance). A sample of 632 Greek adults indicated their exercise stage of change and completed the Amotivation Toward Exercise Scale -2 (ATES-2: Vlachopoulos, Letsiou, Palaiologou, Leptokaridou, & Gigoudi, in press) to indicate their levels of capacity, effort, value/outcome, and task characteristics exercise amotivation beliefs. In regard to capacity beliefs and effort beliefs, significant differences were found between all groups except between groups 3 (preparation) and 4 (action). For value/outcome beliefs, group 1 (pre-contemplators) differed from all the remaining groups and groups 2 (contemplators) and 4 (action) differed from group 5 (maintenance). In regard to task characteristics beliefs, group 1 (pre-contemplators) differed from all the remaining groups except group 2 (contemplators), group 2 (contemplators) differed from groups 3 (preparation), 4 (action) and 5 (maintenance) while group 4 (action) differed from group 5 (maintenance). Overall, achieving a transition either toward the intention to initiate exercise or actual exercise initiation or exercise maintenance may require a decrease of all four types of exercise amotivation beliefs.
59. Using self determination theory to understand coach-athlete relationship: A preliminary investigation
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Abstract:
The quality of coach-athlete relationships is vital in establishing and maintaining a healthy coaching atmosphere for athletes. However, very little has been known about its motivational antecedents, owing to the limitations of previous research in defining and assessing the quality of coach-athlete relationship. By applying the 3Cs coach-athlete relationship model and self determination theory, the present study aimed to understand the relationships between athletes’ motivational orientations, autonomous support from coaches, and athlete’s perceived quality of coach-athlete relationships in terms of closeness (emotional aspect), commitment (intention to maintain the partnership), and complementarity (behavioral aspect). 293 elite Chinese athletes (Mean age = 19.63±4.28; 51.9% female) were recruited for this study, and the collected data was analyzed by structural equation modeling. The proposed structural model yielded acceptable goodness of fit from the data (CFI=.90; RMSEA=.05; SRMR=.05). Autonomous support from coach was positively associated with athlete’s perceptions of closeness (β=.72), commitment (β=.71) and complementarity (β=.63). Furthermore, closeness and complementarity were positively predicted by athletes’ autonomy orientation, and negatively predicted by their control orientation, but the magnitudes of these associations were significantly smaller than that of autonomy support. The results suggested that one’s personality orientation (personal factor) and the perception of autonomy support offered by the coach (situational factor) contributed substantially to closeness (R2=.74), commitment (R2=.64), and complementarity (R2=.66). Overall, the present study demonstrated that coaches’ autonomy supportive behaviors as well as athletes’ autonomy orientation are potential factors leading to harmonious coach-athlete relationships.

C6: PHYSICAL EDUCATION

60. Examination of Singapore PE Teacher-Coaches’ Perceived Motivational Climate in an After School Physical Activity Program: A Case Study Using Self-Determination Theory
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Abstract:
In Singapore, PE teachers perform inter-related roles in teaching PE and as coach during Co –curricular Activity (CCA). The Singapore Education Ministry’s policies had provided guidelines for PE teachers to engage students to be more physically active in school. In reality, there is a possible mismatch between policies and the practices in schools among other possible reasons. According to self-determination theory, human behaviour is controlled by the satisfaction of three fundamental psychological needs which are the need for self-determination, competence and relatedness. 98 (m=66, f=32; mean age = 28.06 years old) PE teacher-coaches and 881 (m=460, f=421, mean age = 14.32 years old) students participated in this study to identify the motivational profile of Singapore PE teacher-coaches and perceived motivational climate created by during PE lessons and during their CCA. Results showed that a significant difference (P<.05) between male and female PE teacher-coaches in their motivational profiles in coaching. However no significant difference (P>.05) in the both motivational climate settings they created but a positive correlation (P<.05) in their CCA climate only. The students perceived differently in the way...
the climate was created by their PE teacher-coaches in coaching settings. To support the earlier research, an intervention study based on the motivational model of coach-athlete relationship will be carried out with PE teacher-coaches who exhibit a more dominant non-self determined form of motivations. The second study hopes to find out whether change in motivation and degree of learning environment in CCA setting can produce positive outcomes in motivation of student-athletes.

61. Examining motivational climate variable with regard to motivational strategies in physical education setting with Turkish high school students

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Abstract:
The aim of the study was to examine the difference between students’ motivational strategies for learning developments who attend different physical education (PE) classes. During 2008-2009 school year spring semester PE lessons of three different classes were done by the researcher according to three different motivational climates in a public high school in centre of Denizli, Turkey. Mastery, performance approach and performance avoidance motivational climates applied according to Epstein’s (1989) TARGET elements to three first grade high school classes. Lesson plans were prepared according to the Turkish National Ministry of PE Curriculum. For three experimental groups all materials, teaching styles, subjects, and evaluation techniques were the same, only the motivational climates created by the teacher were differentiated. Motivated Strategies for Learning Questionnaire (MSLQ) applied to 84 (43 girls, 41 boys) students at the beginning and end of the semester. Post-test scores were extracted from pre-test scores to calculate students’ motivational strategies for learning development and One Way ANOVA was applied to the data. Results showed that; •There were significant differences in self-regulation (p=.010), cognitive strategy use (p=.002), self-efficacy (p=.049) and test anxiety (p=.027) between mastery, performance approach and performance avoidance experiment groups. •Self-regulation, cognitive strategy use, self-efficacy and test anxiety scores of mastery climate group was significantly lower than performance approach group (p=.005; p=.003; p=.015; p=.015). •Self-regulation scores of performance avoidance group was significantly lower than performance approach group (p=.016). •Cognitive strategy use and test anxiety scores of performance avoidance climate group was significantly lower than performance approach group (p=.002; p=.015).

62. Causal relationships of perceived teaching behaviours with students’ autonomous and controlled motivation in physical education: A longitudinal study

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Abstract:
Little information exists about the causal relationships of perceived teaching behaviours with students’ motivation in physical education. Using cross-lagged panel models, the aim of this study was to answer the following questions: Do perceptions of different dimensions of teaching behaviours drive students’ autonomous and controlled motivation in physical education, do students’ autonomous and controlled motivation in physical education drive perceptions of teaching behaviours, or are these constructs reciprocally related over time? Among 498 Estonian school students (M age = 13.76 years, SD =.77) who participated at Time 1, 330 responded to the same multisection inventory (tapping perceived teaching behaviours with dimensions of democratic versus autocratic behaviour, teaching and instruction, social support, situation consideration, positive general feedback,
and both positive and negative nonverbal feedback as well as measures of different types of motivation) at Time 2, one year later. Results from the separate path analyses models revealed that democratic behaviour, autocratic behaviour, and positive general feedback had reciprocal relationship with autonomous motivation, with democratic behaviour and positive general feedback having positive relationships and autocratic behaviour having a negative relationship. Results revealed prior situation consideration was related to higher level of subsequent autonomous motivation, whereas prior autonomous motivation was related to higher level of subsequent positive nonverbal feedback. Finally, prior teaching and instruction and social support was related to higher level of subsequent autonomous motivation, but lower level of subsequent controlled motivation. Results suggest that the causal ordering between various dimensions of perceived teaching behaviours and students’ motivational orientation in physical education is different.

C7: ORGANIZATIONS AND WORK

63. New Insights into Leadership Assessment and Leadership Development
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Abstract:
Leadership assessment and leadership development is paramount for self-determination. This research introduces theory on triads of typical-maximal-ideal (a) individually considering, (b) contingently rewarding, (c) extra effort inspiring, (d) effective, (e) leading by exception (active), (f) idealized influence (attributed), (g) inspirationally motivating, and (h) satisfactory leadership performances (for example via triad of typical, maximal, and ideal satisfactory leadership performances) adding diversification and precision to leadership assessment. It explores the proposition that within each triad - each of typical, maximal, and ideal leadership performances is theoretically and conceptually distinct and supports this distinction through databased empirical analyses by using mean difference via one sample t-test and one way analysis of variance. Thereafter, it uses each triad of the distinct typical, maximal, and ideal leadership performances to introduce and empirically test the mechanism to quantify respondents’ intrinsic desire and inherent potential to enhance their respective leadership performances. Finally, it suggests precedents of each leadership performance and presents implications for leadership development training on the basis of correlations and multiple regression analyses.

64. Formal Rules and Well-Being in the Workplace
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Abstract:
Formalized rules and procedures have long been suspected of deteriorating an employee’s well-being by reducing self-determination (Deci & Ryan, 2000) and inducing feelings of powerlessness (DeHart-Davis & Pandey, 2005). Data however provides mixed support for these negative consequences of rules on well-being. Rules have been shown to have both positive (Snizek & Bullard, 1983; Stevens, Diedriks, & Philipsen, 1992) and negative (Arches, 1991; Benz & Frey, 2004) impacts on well-being. Based on these inconsistent findings the aim of our study is twofold. First we explore the criteria that shape an employee’s assessment of rules as deliberating or restrictive. Secondly we identify under which conditions rules foster well-being. A mixed method approach was chosen. In a first step we conducted 32 semi-structured interviews with a theoretical sampling of employees of a pharmaceutical company and subjected those to qualitative content analysis (Mayring, 2008). As a result we find that rules are perceived in a positive light because they heighten a) feelings of
competence (rules give feedback) b) and relatedness (rules facilitate collaboration) c) under the condition of an employee’s salient identification with the company (rules are then viewed as appropriate and worthwhile). Based on these results we link social identity to self-determination theory and propose how rules and well-being are linked in an integrated model with organizational identity as a moderator. Second we conducted a survey in the same company to test our model with both subjective and objective data. Currently we are in the process of testing the hypotheses.

65. School Principals’ Leadership Styles and Teachers’ Motivation: A Self-Determination Theory Analysis
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Abstract:
The research described here is anchored in the convergence of two fundamental theories of leadership and motivation: the full range model of leadership (Bass, 1985) and self-determination theory (Ryan & Deci, 2000). The central hypotheses are that transformational leadership predicts autonomous motivation among teachers whereas transactional leadership predicts controlled motivation. We further predicted that autonomous motivation would mediate the relation between transformational leadership and teachers’ burnout and that controlled motivation would mediate the relation between transactional leadership and burnout. Questionnaires assessing the variables of interest were completed by 122 Israeli teachers. Results support the hypotheses and suggest that leadership styles among school principals play a significant role in teachers’ motivation and well-being.

66. Examining the role of self-concordance in the relationship between job resources and work engagement: Croatian sample
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Abstract:
The present investigation was designed to link the self-concordance model to some of the contemporary research concepts in positive organizational psychology, namely work engagement. First, we look at the metric characteristics of the scales for work engagement and self-concordance translated in Croatian; and second, we consider the role of self-concordance in the relationship between job resources and work engagement. Namely, resources at work that are characterized as providing choice, encouraging personal initiative and supporting competence in a climate of relatedness are predicted to foster autonomous motivation. More concretely, we hypothesize that resources at work can affect the degree to which an individual perceives his or her work as self-concordant. Further on, we hypothesize that self-concordance partially mediates the relationship between job resources and work engagement. That is, we expect that presence of higher job resources fosters work self-concordance, which, in turn, relates to higher work engagement, operationalized as a positive and fulfilling state of mind characterized by vigour, dedication, and absorption. Data was collected as a pilot study within a PhD research project, among a convenient sample of 573 Croatian participants working in a variety of occupations. The results showed significant partial mediation effect of work self-concordance, after controlling for some of the relevant sociodemographic characteristics. These findings are consistent with previous research and illustrate the importance of the characteristic of the work environment for the internalization of the work related tasks and work engagement.
67. Motivation and job-related well-being: Why do workaholic, engaged and burned-out employees work so hard?

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Abstract:
The current study was designed to illuminate the motivation underlying workaholism, work engagement, and burnout, the antipode of work engagement. The Self-Determination Theory of Ryan and Deci (1985; Ryan & Deci, 2000) constituted the theoretical framework for our study. Data were collected through a survey held among 544 nurses and 216 physicians in China. Hypotheses were tested using structural equation modelling. Results showed that workaholism was positively related with introjected regulation and identified regulation, while it was negatively related with intrinsic regulation. Work engagement was positively related with introjected regulation, identified regulation and intrinsic regulation. The relationships were stronger the more autonomous the motivation. Furthermore, burnout was negatively related with identified regulation and intrinsic regulation. These results hold for nurses and physicians. In addition, burnout was positively related with introjected regulation, but only for physicians.

In conclusion, Self-Determination Theory provides a valuable theoretical framework that helps to explain the antecedents of workaholism, work engagement and burnout. As motivation becomes more autonomous employees become more work engaged and less burned-out. This might suggest that enhancing feelings of relatedness, feelings of competence, and feelings of autonomy might stimulate the development of work engagement and discourages the development of burnout. In addition, experiencing an activity by itself as inherently enjoyable and satisfying might hinder the development of workaholism and burnout, and might stimulate work engagement.

68. Organisational coaching: the role of self-determination, autonomy support, and regulatory focus in the coaching process.

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Abstract:
Goal Setting Theory underlies many organisational coaching practices however it fails to explain how setting goals helps to improve performance. Therefore it has limitations as a theory for organisational coaching psychology. This study aims to address this limitation by examining the tenets of Goal Regulation Theory (Self Determination Theory and Regulatory Focus Theory) to help explain how psychological factors in the organisational coaching process may be linked to coaching success. Responses from 32 coaches (male = 53%, female = 47%) indicated interaction effects between coach and coachee motivational factors were significant predictors of increased coaching success. Knowing coach and coachee motivation factors increased the rates of correctly classifying coaching success between 21% and 28%. Although the effects were small and inconclusive, this study successfully helped to explain how motivational factors in the coaching dyad improves performance.
69. The impact of the design, implementation, and use of the balanced scorecard and balanced scorecard-based incentives on middle managers’ motivation

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Abstract:
After its introduction in the early 1990s the balanced scorecard (BSC) got successfully adopted by numerous organizations as a strategic management system. Research revealed that the BSC positively influences organizational performance. Nevertheless, the underlying mechanisms remain vague. Therefore this paper tries to grasp the role of one of the underlying factors, namely motivation of the middle manager. Consequently, three research questions are investigated: (1) does the design and implementation process of the BSC affects the motivation of middle managers? (2) Does the use of the BSC influences middle managers’ motivation? And (3) how, when and why do BSC-based incentives influence the motivation of middle managers? Empirical results for the first and second question are case based. A survey is used to answer the third research question. Results demonstrate that a BSC which is designed, implemented and used in an enabling way enhances autonomous motivation through support of the three basic psychological needs. Furthermore, participation, feedback and information overload seem to play a significant role. Increasing participation and feedback in the development process, and during the use of the BSC, on the one hand, lead to increased autonomous motivation. Information overload, on the other hand, has a negative impact on autonomous motivation. The higher the information overload, the lower the support of the three basic psychological needs and the lower the increase in autonomous motivation.

70. Appreciative Inquiry Evaluated from a Self Deterministic Perspective: the Impact on Psychological Capital

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Abstract:
Appreciative Inquiry (AI) has gained growing popularity as an approach to organizational development and change. However little research on the effect of AI on employees has been published. From within the Self Determination framework the mediating effect of relatedness, autonomy and competence on the relationship between AI and Psychological Capital (PsyCap) is investigated. It is conjectured that AI increases the self-determined motivation of employees hereby impacting on PsyCap. Appreciative Inquiry is based on qualitative interviews, however data for this quasi-experiment are collected by means of a questionnaire. This study, based on the responses of 331 participants working in organizations whether or not characterized by systematic AI-practices, explores if experiencing an AI approach during organizational change improves the level of Psychological Capital. Results show a significant main effect of experienced AI on Psychological Capital. Moreover a partial mediation effect of autonomy and competence was found. Future research on this topic should focus on refining the instrument measuring experienced AI. More research on the effect of AI on employees can contribute to the success of organizational development and change.
71. The effects of autonomous motivation on employees’ absenteeism

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Abstract:
Absence from work due to ill-health is currently costing the Belgian employers more than 10 billion Euros a year. Given the yearly increase of this cost, it is important to shed light on the processes by which rates of employee absence can be reduced. In previous studies, it has been shown that the amount of work motivation is negatively related to employee absence (both frequency and duration). The aim of this study is to examine the relationship between the type of motivation (using Self-Determination Theory – SDT – as a framework), controlling measures and absenteeism. To this end, we conducted a field study using an online survey. The sample was composed of 1500 Belgian employees, representative for the salaried Belgian working population. Absence from work due to ill-health was measured using self-reported data, i.e. the number of days absence (duration) and the frequency of absence over the 12 months before the survey. Autonomous motivation (AM) and controlled motivation (CM) were measured using eight items that were based on the Self-Regulation Scale (Ryan & Connell, 1989). Based on previous findings and using SDT as a framework, we expected that higher AM and lower CM would lead to lower frequency and shorter duration of absenteeism. Moreover, in line with SDT, we expected an interaction-effect between “organisations that use controlling measures against absenteeism” and the type of motivation: negative influence of controlling measures on the absenteeism of controlled motivated employees and no influence on the absenteeism of autonomous motivated employees. Interesting conclusions and practical implications will be discussed.

C8: NONCONCIOUS PROCESS AND PRIMING

72. Development of an implicit exercise motivation measure.

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Abstract:
Background. Research indicates that motivation can be measured implicitly, and that such measurement can predict behaviour beyond explicit forms of measurement (e.g. Schultheiss, 2008). At present, there is no sound implicit measure of motivation in self-determination theory in relation to exercise. The goal of the current research was to compare two possible methods of assessing implicit exercise motivation— the Lexical Decision Task (LDT) and the single attribute Go/ No-Go Association Task (GNAT). Stimulus items were selected from words commonly used in explicit measures of the motivation styles in self-determination theory. Methods. Participants included 101 undergraduate students who completed the LDT, GNAT, and the Behavioural Regulation in Exercise Questionnaire (BREQ-2). Participants also engaged in an exercise task, during which time their heart rate and ratings of perceived exertion (RPE) were measured. Results. No significant results were observed for the prediction of dependent variables from the implicit measures. However, trends indicated that individuals responding faster to identified regulation stimuli on the LDT recorded higher heart rates ($r = -0.159, p= 0.191$). In the LDT, the four regulation types also correlated in expected directions, with each sub-type of regulation correlating most strongly with its adjacent regulation types on the continuum of autonomy. Conclusion. Results from the current research indicate the LDT to be the more effective measurement of implicit motivation. LDT allows the assessment of the four sub-types of regulation commonly identified by many explicit measures. Trends indicate that the LDT elicits the most predictive information regarding explicit measures and subsequent behavioural outcomes.
73. Assessing the predictive validity of implicit measures on health-related behaviors
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Abstract:
The literature on motivation is replete with research involving explicit measures and their relations with intentions and behavior. Recently, interest has focused on the impact of implicit processes and measures on health-related behaviors. Dual-process models have been proposed to test the effects of implicit and explicit processes on health-related behavior. This study aimed to develop implicit measures of motivation orientations on health-related behavior using Self-Determination Theory as a framework. The Implicit Association Test and Go/No-go Association Task were adopted to measure implicit motivational orientations from SDT and their predictive validity for 20 health-related behaviors in a sample of undergraduates (N=162). A model including both implicit and explicit processes was developed to test whether the effect of implicit motivation on health-related behavior was direct and independent of intention. Regression analyses indicated that across the behaviors explicit measures were the most consistent predictor of behavior (median Beta=0.097). Implicit motivation significantly predicted behavior independent of intentions for 5 behaviors. However, implicit motivation was relatively inconsistent as a predictor of intention and intentions were largely predicted by explicit motivation. This research is important in developing implicit measures and ascertaining their predictive validity. To date, no study has compared implicit measures of motivation orientation or examined their effects on health-related behavior alongside explicit measures in a dual-process model. Future studies should examine the role of changing implicit motivation through priming to provide further support for implicit motivation and the dual-process model.

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Abstract:
Self-determination theory has shown that three basic human needs, autonomy, competence, and relatedness, are necessary for human functioning in important life domains, including the internalization of these domains. However, this research has thus far been conducted uniquely through questionnaires, and the cognitive implications of experiencing need satisfaction in important life domains have never been examined. The present research examines whether people form implicit associations between internalized domains and the satisfaction of psychological needs. In the first study participants were faster to respond to words related to ‘self’ (i.e. me, mine, my, etc.) than ‘other’ (i.e. they, them, their) following a subliminal prime of a highly need satisfying domain, suggesting that domains high in need satisfaction are strongly associated with the concept of the self. In a second study, participants were quicker to respond to need-related words (i.e. choice, achieve, belong) than to neutral words when primed with a domain pursued due to intrinsic motivation, and quicker to respond to need-related words when primed with an intrinsic rather than extrinsic domain. Taken together, these studies suggest that there are important cognitive associations between the self and need satisfaction in important life domains and provide further proof that self-determination theory principles also operate on a nonconscious level.
C9: HEALTH CARE

75. The role of motivation in the adherence to anti-HIV treatments
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Abstract:
The adherence of HIV-positive patients is essential in particular with regard to the risks of resistance with treatments, which would facilitate transformation of the virus. Previous research indicated that motivation is one of the best predictors of treatment adherence. The object of this study is thus to evaluate the role of motivation, from an SDT perspective, in the adherence to anti-HIV treatment. Another aim is to assess the relations between patients’ depression level, mindfulness, self-esteem and their adherence. The sample will be composed of 20 HIV positive inpatients (both male and female), hospitalized at the “Pitié–Salpêtrière Hospital” in Paris. The patients will complete self-report measures of motivation to treatment, anxiety and depression, subjective well-being, self-esteem, competence and mindfulness. The preliminary results are encouraging, showing a positive link between patients’ internal motivation and their adherence to treatment.

76. Testing a self-determination theory model to examine the role of motivation on participants’ well-being over the course of an exercise on referral program
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Abstract:
Research grounded in SDT indicates that the motivation underpinning physical activity behaviour can influence psychological well-being. We test a SDT based model to delineate longitudinal effects of motivation and need satisfaction on mental and emotional well-being in participants assigned to an exercise on referral program (ER). Participants (n= 155) were individuals who completed a 3 month UK based ER program. The majority of participants were middle aged (M = 54.33 +/- 13.14 years), female (73%) and overweight or obese (M BMI = 32.79 SD= 6.13). At baseline 20% were considered depressed and 34.8% were marked by high anxiety. Structural equation modeling analyses revealed support for a SDT-based sequence (CFI=.98; NNFI=.97, RMSEA=.05 (90% CI=.00-.10) and SRMR =.07). Perceptions of fitness advisor provided autonomy support at program start (T1) positively predicted autonomy, competence, and relatedness need satisfaction at 3 months (T2). Perceptions of important other (e.g., partner) autonomy support was only significantly related to the need for relatedness. Satisfaction of the needs for autonomy and relatedness (T2) were positively associated with autonomous motivation (RAI; T2). Participants’ RAI (T2) positively predicted subjective vitality and negatively predicted depressive symptoms at a 6 months follow-up (T3). Finally, autonomy need satisfaction (T2) also positively predicted subjective vitality (T3). Our results provide support for a self-determination sequence over the course of an ER program. They also suggest that training fitness advisors and important others in how to create a need supportive environment may be beneficial for the mental well-being of ER participants.
77. Motivation for physical activity in young adults with a disability during a rehabilitation stay
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Abstract:
There is a lack of knowledge about motivation for physical activity among people with a disability in general, and in particular in rehabilitation settings. The present study was undertaken in order to investigate the development of motivation regulation of physical activity in a group of 44 young adults with a disability (age 18-35) admitted to a rehabilitation centre for a three week rehabilitation stay. Self-determination theory were used as a theoretical framework for the study, and emphasis were put on fulfilment of the basic psychological need during the rehabilitation stay. Motivation regulation was measured by the Self Regulation Questionnaire – Exercise (SRQ-E), and fulfilment of basic psychological needs was measured by the Health Care Climate Questionnaire (HCCQ) and Basic Psychological Need Scale (BPNES). Results indicated strong fulfilment of the basic psychological needs, but revealed no significant change in motivation regulation during the three weeks. However, intrinsic motivation was high from the start. Further, the participants increased their physical activity level during the rehabilitation period, and this effect remained significant three months after discharge.

78. Exercise autonomous motivation and physical activity mediate 3-year weight change in overweight and obese women
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Abstract:
Purpose: Self-determination theory (SDT) has not been previously applied to weight management in long-term, controlled designs. The aim of this study was analyzing the extent to which perceived contextual need support, behavioral exercise regulations (12- and 24-month), and physical activity (24-month) mediate the impact of an SDT-based intervention on 36-month weight change. Methods: Longitudinal randomized controlled trial, consisting of a 1-year SDT-based intervention and a 2-year follow-up with 221 female participants (37.6±7 y; 31.6±4.1 kg/m2 BMI). Model testing was conducted using partial least squares (PLS) analysis. Where there were significant intervening paths, tests of mediation were conducted. Results: The model explained 19-96% of the variance in the target variables. Treatment had indirect effects on 12- and 24-month autonomous self-regulation, 24-month physical activity, and 36-month weight loss, fully mediated by the tested paths (effect ratios: 0.10 - 0.61). Perceived support had indirect effects on 24-month autonomous self-regulation and physical activity, fully mediated by the tested paths (effect ratios truncated at 1.0). Twelve-month autonomous self-regulation had indirect effects on 24-month physical activity, mediated by 24-month autonomous self-regulation (effect ratio 0.81), and indirect effects on 36-month weight loss, partially mediated by both 24-month autonomous self-regulation and physical activity (effect ratio 0.33). The 24-month autonomous self-regulation effects on 36-month weigh loss were partially mediated by physical activity (effect ratio 0.42). Conclusions: This application of SDT to physical activity and weight management provides experimental evidence that an autonomy-supportive context facilitates the internalization of regulatory processes which promote long-term behavioral and clinical outcomes in overweight/obese participants.
79. Looking Cool or Attaining Self-Rule: Different Motives for Autonomy and Their Effects on Unhealthy Snack Purchase

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Abstract:
As an integral factor in adolescent health, autonomy presumably also affects adolescent health risk behaviors like unhealthy snacking. While Self-Determination Theory suggests that autonomous adolescents are less likely to engage in risk behaviors, opposite views have also been expressed. We suggest that two forms of autonomy exist with differential effects on health risk behavior. These are agentic autonomy, informed by Self-Determination Theory and driven by a motivation to self-regulate, and self-presentational autonomy, driven by motives of separation and image cultivation. The present study aimed to demonstrate the existence of these distinctive forms of autonomy and their differential effects on unhealthy snack purchase. A prospective study was conducted among 105 adolescents. Results confirmed that the proposed forms of autonomy were unrelated and, while agentic autonomy correlated positively with self-control ($r = .491$), self-presentational autonomy and self-control correlated negatively ($r = -.200$). Furthermore, agentic autonomy led to significantly less unhealthy snack purchase ($p = .014$), while no influence of self-presentational autonomy was found. Concluding, autonomy affects adolescent health risk behavior but may do so in different ways depending on the type of autonomy under study. When investigating the role of autonomy, individual differences in both forms of autonomy should be assessed separately.

80. Health and illness causality orientation scale: development and validation in Russia

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Abstract:
Psychological factors of treatment effectiveness are important issue of health and clinical psychology (Leventhal, 2001, Petrie, Weinman, 1997). The model of treatment motivation developed on the basis of SDT (Ryan et al, 1995, Williams et al, 1996, 1998) was shown to be effective in patients with alcoholism, diabetes, participants of weight loss programs. Our aim was to develop and validate causality orientation scale related to decision making in health and illness and applicable to general population. Methods. The questionnaire (HICOS) is based on Treatment Motivation Questionnaire and includes items related to decision making in situations of visiting a doctor, taking medication and compliance with treatment. 183 healthy students and 50 inpatients with schizophrenia and affective disorders filled HICOS. The healthy group also filled a Russian version of General Causality Orientation Scale and answered retrospective questions about their most recent illness episodes. Results. A 41 items version of HICOS was developed. Factor analysis revealed 5 subscales with internal consistency in the 0.75-0.82 range: autonomy, controlled by doctors, controlled by others, impersonal orientations and treatment refusal. Test-retest reliability is medium to high. The correlations with GCOS and retrospective appraisal of recent illness support the validity of the test. HICOS correlates with compliance and cognitive insight in patients with schizophrenia and affective disorders. Further research is undertaken to establish HICOS validity in patients with somatic disorders and its prognostic validity in patients with mental disorders.
C10: RELATIONSHIPS

81. All I Need Is You: Psychological Need Fulfillment as a Mediator between Romantic Relationship Quality and Individual Well-Being

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Abstract:
Extensive research has shown that psychological well-being is associated with high quality romantic relationships (see reviews by Myers, 1999; Reis, Collins & Berscheid, 2000). Drawing on Self-Determination Theory (SDT; Deci & Ryan, 2000), we investigated fulfillment of individual needs as one psychological mechanism accounting for the link between positive relationships and psychological well-being. An integrated model was tested investigating associations between multiple aspects of romantic relationship quality and well-being while also accounting for other close relationship (friend, family) contributions in 148 Australian heterosexual couples (17-30 years). Multiple reporters were used, with one partner reporting their behaviour towards the other, and the other partner reporting his/her relational self and well-being. We concurrently investigated multiple aspects of relational self, namely individual voice, attachment security, and self-differentiation in relationships. In accordance with Ryan and Deci (2001) two distinct types of well-being, both hedonic (general well-being) and eudaimonic (life fulfillment) were investigated in separate models. Structural equation modelling generally supported need fulfillment as a mediator between partner behaviours and both types of well-being and partial mediator between relational self and each measure of well-being. Unique, positive associations were also found between self-differentiation and general well-being, and between attachment security and life fulfillment. Friend quality remained uniquely and positively associated with both general well-being and life fulfillment for females, though not for males. Education on important couple behaviours for well-being, and recognition of the significance of need fulfillment may be specific targets for relationship counselling and education.

82. Understanding the Provision of Need Support: The Role of Attachment Security

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Abstract:
The current research examined the extent to which a secure attachment orientation predicts provision of basic psychological need support to others. In a series of two experimental studies we examined the effects of a secure prime, positive affect prime and neutral prime on a scenarios based need-support questionnaire (i.e., an adaptation and extension of the PAW, Deci et al., 1989). We predicted that secure base priming would lead to better support of the three psychological needs to others than in the positive affect and neutral priming conditions. Overall, our prediction was supported in both Study 1, using subliminal priming (N = 66), and in Study 2, using supraliminal priming (N = 106). However, differences between secure and positive affect priming was not constantly significant. These findings illuminate our understanding of an important causal determinant of basic need support provision. In addition, the results suggest that future research should consider basic need support as a mechanism which drives the link between secure attachment orientations and a plethora of documented positive outcomes.
83. What Motivates One’s Intentions to Collaborate or Compete? Effects of Social Exclusion/Inclusion and Motivation on Peer Relationships
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Abstract:
Research on the need to belong theory has shown that the non satisfaction of the need to belong leads to the development of interpersonal relationships whereas the satisfaction of that need prompts individuals to maintain their current relationships (Baumeister & Leary, 1995; Maner, DeWall, Baumeister, & Schaller, 2007). We argued that these statements cannot both be true and hypothesized that it is not only the satisfaction or the non satisfaction of one’s need that will lead to the behavior but also the reasons why the behavior is carried out. Thus, we investigated the effects of social exclusion and inclusion on the motivation to accomplish a laboratory task which involved a peer interaction. More specifically, participants’ intentions to collaborate with, and to compete against another participant were examined. Participants read a bogus personality report informing them that they would either end up alone later in life (exclusion condition) or have a fulfilling social life (inclusion condition). They then learned to do a visuo-spatial task in preparation for the peer interaction. After completing the task, participants were asked to rate their reasons for doing so, i.e. to be able to help the other participant (collaboration) or to be better than the other participant (competition). Results showed that included participants performed the task for more autonomous reasons than excluded participants. Furthermore, autonomous motivation predicted higher intentions to collaborate with the other participant whereas controlled motivation predicted intentions to compete against the other participant.
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