# 70 Phil Johnson-Laird From fellow friends

### 40<sup>th</sup> Anniversary of Mental Models Theory

## University College London London, 2023



#### Mental Models 40th Anniversary

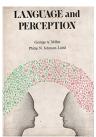
Who is Phil to all of us? To name a master, a role model, an esteemed and admired, beloved person, is not enough to express our feelings. Phil is an inspiration, for researching, for getting to know him, for the joy of work. It is the connection of the joy of researching with the joy of being together. The connection of the head with the heart.

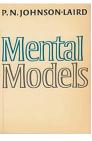
#### **Great Phil!**

In 2023, on July 21 and 22, a meeting was organised in honour of Phil Johnson-Laird, celebrating the 40th anniversary of the mental model theory. The meeting was held in London at University College and was hosted by Peter Fonagy and organised by Monica Bucciarelli, Sunny Khemlani, and Marco Ragni. This book collects the testimonies of many fellow colleagues who wanted to celebrate these dates, and it shows that Phil Johnson-Laird is a unique personality.

Monica Bucciarelli & Cristina Quelhas

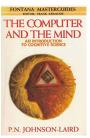
















#### Phil the Scientist...

When Monica and Cristina asked me to provide this first page on "Phil the Scientist", I was honored but daunted — how to capture the essence of Phil's contribution to the science of the human mind?

The program of talks at this meeting, as those for Phil's festschrifts in Dublin in 2006, and in London in 1996, testify to the inspirational impact of his theoretical and empirical work on thinking, reasoning, problemsolving, meaning, music, and art. They also reflect Phil's creation of a scientific community with a shared set of interests, goals, and values; in the words of our dear late friend, Vittorio, "the mental models family".

I am sure that each one of us who has worked with Phil has a unique perspective on his scientific engagement. Mine is mostly informed by three refrains, constant from when we began working together in Cambridge in 1986, right up to the paper we submitted last week, which I will paraphrase as,

"Let's listen to the data", an embodiment of Phil's integrity in allowing even the most cherished of ideas be ruined by contrary evidence;

"Better put in the scholarship", a reflection of Phil's erudition in reading widely across disciplines, eras, friends, and foes; and

"I'll read it aloud now to polish the prose", indicative of Phil's commitment to communicating even the most complex and technical of ideas in writing that is as elegant as it is beautiful.

Ruth

Dublin, May 2023

#### **PARTICIPANTS**

BARA, Bruno LOPEZ ASTORGA, Miguel

BAR-HILLEL, Maya MACBETH, Guillermo

BARON, Jonathan MACKIEWICZ, Robert

BUCCIARELLI, Monica MORENO-RÍOS, Sergio

BYRNE, Ruth NEWSOME, Mary

DEAUX, Kay OAKHILL, Jane

ESPINO, Orlando OATLEY, Keith

EVANS, Jonathan ORENES, Isabel

FERRANTE, Donatella PATTERSON, Karalyn

FONAGY, Peter QUELHAS, Cristina

FROSCH, Caren RAGNI, Marco

GANGEMI, Amelia RASGA, Célia

GARCÍA-MADRUGA, Juan RIZZO, Antonio

GARNHAM, Alan SANTAMARIA, Carlos

GOODWIN, Geoffrey SCHAEKEN, Walter

GREEN, David SCHROYENS, Walter

JUHOS, Csongor SHALLICE, Tim

KAHNEMAN, Danny SPERBER, Dan

KEANE, Mark KHEMLANI, TASSO, Alessandra

Sunny KNAUFF, Markus TORREANO, Lisa

LEE, Louis TROMP, Catrinel

LEGRENZI, Maria TVERSKY, Barbara

LEGRENZI, Paolo VALENTINE, Elizabeth

VANDIERENDONCK, André

Press one name and get directly the page.

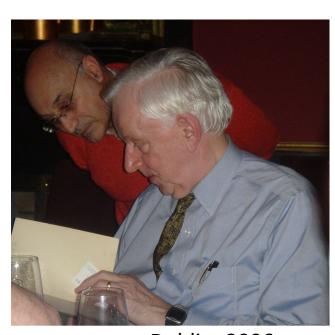
### Bruno BARA Torino University, Italy

Caro Filippo, a warm memory of you with our mutual best pupil (London, 2016).



My thanks for an entire life of friendship and inspiration, with admiration,

B R U N O



Dublin, 2006

### Maya BAR-HILLEL Hebrew University of Jerusalem, Israel

In 1995, the so-called SPUDM conference took place in Israel, for the first time in its history. Our guest of honor was Phil. In his keynote address, he presented the audience with some of the deductive logic problems which confound his subjects as much as the famous probabilistic reasoning problems confound the subjects of JDM research.

The audience, predictably, fell into his "traps" just as his subjects did. One outraged respondent raised her hand, and complained: "But I thought that ...". "Don't come to me with your hard luck stories", replied Phil with a sly grin.

The audience roared with laughter. It was a lesson as humbling as it was edifying. And hilarious. Phil had given us JDMers an insight into the experience we routinely give our own respondents. It is one I have never forgotten, and am ever grateful for.

Maya



### Jonathan BARON University of Pennsylvania, U.S.A.



Thanks for the last 50 years of important insights.

For me this began with these two books, still on my bookshelf.

Jon



#### Monica BUCCIARELLI Università di Torino, Torino, Italia







Almost thirty years of affection and friendship.



We have shared important moments and people.









And we're still here: with the love of all time!

### Ruth BYRNE & Mark KEANE Trinity College Dublin & University College Dublin, Ireland





Phil and Mo,
We haven't changed a bit!
Definitely older, probably wiser, possibly even more fabulous!
love, Ruth and Mark





## Kay DEAUX Distinguished Professor Emerita, Graduate Center of the City University of New York. New York, USA

Last year, this message would have been written by Sam Glucksberg, whose acquaintance and friendship with Phil spanned five decades, ended only by Sam's death in 2022. I believe they first met in the 1970s, either at Sussex where Sam was doing a sabbatical, or in Princeton, when Phil was a visiting member of the Institute of Advanced Study. Wherever the meeting, the connections were forged and some years later, in a move that Sam took great pride in facilitating, Phil joined the faculty of the Psychology Department at Princeton University in 1989.

My own acquaintance with Phil and his wife Maureen (Mo to almost all who know her) dates from his arrival at Princeton. What a pleasure it has been to know them both in the intervening years! Others more knowledgeable in Phil's field of scholarship will write of his work on mental models of reasoning. My own experience with the mind of Phil is more general, knowing him as a wellspring of information on music, literature and numerous other topics—including some wonderful stories about the characters he has known!

Phil is an indefatigable scholar, unceasing in his pursuit of knowledge and understanding. He and Mo are also good and loyal friends whose friendship both Sam and I have treasured.

Enjoy your celebration, Phil!

Kay DEAUX



## Orlando ESPINO Departiment of Cognitive Psychology, University of La Laguna, Tenerife, Spain

I take the occasion of the 40th anniversary of Mental Model, to publicly acknowledge and thank the relevance that Phil's work has had in my professional career. His theoretical proposal has been a constant source of inspiration in my research, which began back in the 1990s with Juan García-Madruga and Carlos Santamaria. Even today, the productivity and fertility of his ideas never cease to amaze. I thank him from the bottom of my heart for his affection, tolerance and generosity that he has shown at all times when I have had the opportunity to interact and work with Phil. I attach a photo of our first meeting in Madrid, more than 20 years ago (November 2000).

Kind regards from Orlando Espino.



### Jonathan EVANS University of Plymouth, U.K.

I first saw Phil in 1967 but he probably did not notice me. I was a student at UCL and he was a young lecturer teaching a course on Thinking and Language. The lectures were most interesting and helped to stimulate my later research interest in reasoning.

It was in his lectures that I first encountered the Wason selection task which was given to the class. I got it wrong, picking the matching cards! I got to know him properly while doing my PhD with Peter Wason, before he left for Sussex and later, Princeton.

Thereafter followed a long academic friendship as we pursued our separate research programmes in the psychology of reasoning. Also, very many discussions and arguments, mostly conducted by email but resulting in only one collaborative publication, on syllogisms. But we each published a number of papers that responded to direct suggestions from the other.

Phil's contribution to psychology and to British science more generally has been truly remarkable and still continues.

Many congratulations, Phil.

### Donatella FERRANTE Department of Life Sciences, University of Trieste, Italy

#### October 1996, Trieste



Donatella, Vittorio, Paolo, Phil, Riccardo (and Umberto Saba portrayed by Carlo Levi)

### Peter FONAGY University College London, London, UK

I would quite literally not be here was it not for Phil. Many people are in your debt Phil but few go as far back as mine. In 1971, you (and Rodney Maliphant) interviewed a multiply failed, deeply depressed Hungarian refugee for a place in the highly sought after UCL Psychology BSc programme. My expected grades were terrible as I had failed most school exams I took — a combination of poor command of English and severe dysgraphia without dyslexia.

To this day I remember the interview. It was humorous, urbane and broad ranging. It was the first time, as an 18 year old emigrant, I felt I was treated with respect, genuine curiosity and as an intellectual equal. After the interview, the university offered me a place conditional on achieving one E at 'A'-level. This was the absolute minimum you were able to ask. The interview and the offer made me feel, for the first time, as someone who was wanted.

I have remained at UCL, notwithstanding ample opportunity to move, because that interview, your capacity to meaningfully reach out with openness and without prejudice to someone in no way your equal with intellectual interest and emotional curiosity, I identified with the institution.

I now of course know that it was your personal qualities of generosity and human dignity that shone through. Sure UCL has some virtues. But it is you that I have to thank for my life and career.

Peter



### Caren FROSCH University of Leicester, UK

I first made contact with you, Phil, as an undergraduate student in 2000. I was astonished that you actually replied to my email. That was my first flavour of the kind and generous man you are. Little did I know then that I would have the opportunity to meet you and work with you only a few years later.



I still remember fondly how nonchalant you were when I showed up with a black eye, having stood too close to a mosh pit. It did not phase you at all that I spent the rest of my visit with a green and blue face!





On all three of my visits to Princeton I was struck by your warmth, generosity and humour. Despite being in the presence of such a bright mind, I was always made to feel like my thoughts were of value and that I had something important to contribute. Thank you for giving me the confidence to pursue my interests and ideas!



Phil, it is an honour and a pleasure to know you and to have worked with you, and I am delighted that I can participate in this celebration of you and your important contributions to our understanding of human reasoning.

## Amelia GANGEMI Department OF Cognitive Psychology, University of Messina, Messina, ITALY

Dear Phil, how can I sum up in a few words and with a few pictures all you have given me?

The easiest thing is to say a thousand times THANK YOU!!! For your love, for what you have taught me and for how having you as a mentor has made me grow humanly and professionally!

I have been very lucky to have met you and your family! With love! Amelia













#### Juan GARCÍA-MADRUGA UNED, Madrid, Spain

Dear Phil,

As you likely remember I met you precisely 40 years ago, in 1983. It was in the meeting of Experimental Psychology Society, in Cambridge. You dedicated a rather long time to speak on syllogistic reasoning with me, an unknown Spanish psychologist. My English was practically nonexistent, and my colleague Mario Carretero had to act as translator. At that moment, I had read a number of your publications and I knew of your exceptional theoretical and experimental capabilities. Then I discovered that your intellectual excellency was built into a personality equally excellent: I was impressed for your closeness and kindness. From that moment on, during these 40 years we have been in permanent contact, and I visited you many times first in Cambridge, then in Princeton and New York. I have had time for confirming and extending that impression.

My first visit at the old Applied Psychology Unit in 1987 was especially important and revealing. The APU, directed by Alan Baddeley and you, and including that notable group of scientists, become to me the most perfect example of a scientific research institute. My purpose for the four months of my visit was to present and debate with you my two-process (superficial and semantic) theory of syllogistic reasoning and be able to design and program in Lisp a computational model of the theory. Learning Lisp, with my difficulties in English, was a challenge only possible to overcome thanks to your mastery, teaching ability and patience. Besides, Ruth was always there to help me. With the arrival of Teresa and Virginia, those months were the happiest and most complete period of my entire academic life. Mo and you were always friendly and attentive to us.

Later, in 1992-93, I spent 10 months collaborating with you in Princeton. In spite of my small health difficulties, that period allowed us to construct the solid personal and academic relationship we have maintained during these years. Afterwards, we met in diverse occasions and places; particularly, in Madrid where we organized two meetings, the Symposium Mental Models in Reasoning and the International Workshop on Reasoning. As a consequence of our collaboration, my university granted you the honorary doctorate in 2000. All these activities were the seeds of the growing impact of mental model theory in Spain and the surge of a group of Spanish researchers working within this approach.

The purpose of these brief lines is to publicly remember in this celebration of the 40th anniversary of the theory of mental models, some common key contexts and

moments, from my personal view and experience.

Un fuerte abrazo. Juan

### Alan GARNHAM University of Sussex, Brighton, UK

Phil, I first came to Brighton in 1977 to be interviewed by you and Stuart Sutherland for a DPhil place (as Sussex called it in those days) in the Laboratory of Experimental Psychology at the University of Sussex. You later told me that Stuart had been impressed by my range of interests and other PhD applications. And, indeed, he took me under (a small part of) his wing as a book reviewer for QJEP. Stuart's comments on my book review drafts and your comments on my thesis drafts (and other pieces of

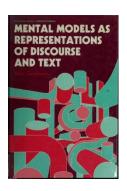


writing) although selective (and hence not overwhelming!) taught me how to write decently – from which I have benefitted greatly throughout my career. Comments, in both cases, pointed clearly to areas of possible improvement. I also benefitted from your light touch, but intellectually highly stimulating supervision. Light touch was the norm in those days, but I often wonder about the members of my cohort who just drifted away.

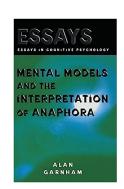
We did some interesting work on mental models and language, which has kept me busy, and mainly at Sussex, ever since, though I've been doing some slightly different things recently.



The textbook



The book of the thesis!



The monograph

Stanley Peters' 1979 visit to Sussex resulted in me spending the best part of a year at UT Austin, where I met a number of the "cognitive science" people (both faculty and visitors) you had been jostling with, intellectually. And for some time my textbook, Psycholinguistics: Central Topics, gave me some kudos in the international community, even though it was a slim UK-style volume.

One thing I've done quite a bit of, and which you never liked, is University administration. Maybe to your surprise, I got into it in the 1990s. Being "Subject Chair" (another quaint Sussex-ism) of the Experimental Psychology Lab was quite a revelation to me, in many ways, and helped my intellectual and personal development. Since stepping down from that role I've done a lot of admin work around graduate students, which has suited me well. And I also worked with Rod Bond, as his deputy, in setting up the combined Department (now School) of Psychology as Sussex — always dreaded in EP, but in the end quite a success.

You set me on my way in my university career – something I was always aiming for, and for that I will be forever grateful. Thanks, Alan.

#### Geoff GOODWIN

Department of Psychology, University of Pennsylvania, Philadelphia, U.S.A.

Dear Phil,

Thank you for giving me my start in academic life, for which I am forever grateful.

You were immensely generous with your time, energy, ideas, and overall investment in me as a student. And it made a world of difference.

You are my aspirational mental model of an intellectual and mentor.

If I did not have you as my PhD mentor, I would not have survived in academia.

There are no models in which the antecedent is true and the consequent is false!

I am so glad to be able to celebrate this occasion with you in London.

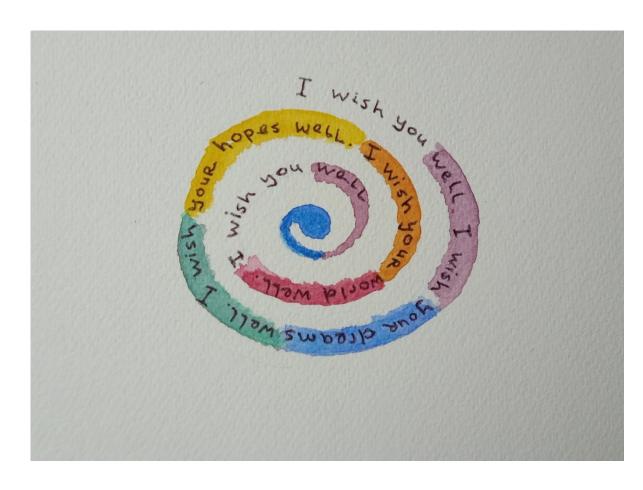
Very best wishes to you and Mo.

Cheers! Geoff



David W GREEN
Experimental Psychology
University College London

Many thanks Phil for all your wonderful contributions to Psychological Science. A wishing well for you.



David





THANKS FOR ALL THE GOOD STUFF, PHIL! KEEP INSPIRING US ALL.



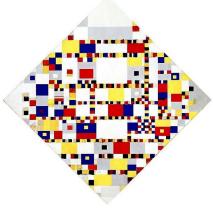
London, 2012

## Sunny KHEMLANI Navy Center for Applied Research in Artificial Interlligence US Naval Research Laboratory



Fig. 1. Eight measures from the start of Bud Powell's improvisation on the chord sequence for Thelonius Monk's theme, Off Minor.

The first talk of yours I sat in was about how jazz musicians improvise (at RPI in 2003).

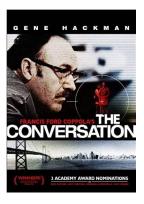


When we met a few years later, we discussed our mutual admiration of Piet Mondrian, and our parallel experiments with neural networks to simulate his paintings. I joined your lab shortly thereafter.



A trip to Florence in 2008 found me in a small church studying Masaccio's *Holy Trinity*, which you'd suggested I visit. "It's a knockout even for an agnostic like me," you said. I was knocked out.

Your advice as I began my thesis on reasoning through conflicts: watch Coppola's *The Conversation*...



FISCHER OF

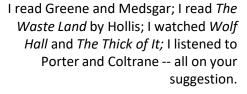
**GENEVA** 

ТНЕ ВОМВ

PARTY



...and as I planned a trip to the Westfjords: read *Letters from Iceland*.





Here's the point: you inspire explorations of human thinking far beyond the laboratory. Thank you, Phil, for your wonder and fascination with the world – and for all the things you've helped me discover.



#### Louis LEE Registered Independent

#### Nous n'oublions pas:

- Reading rots your brain
- You may be right (= you're wrong)
- Forget about bells-and-whistles
- Persevere, persevere!
- There is just one problem in your presentation. There is no joke in it
- Print it, read it aloud, and give it a final polish
- Your task is to write, write, write
- Aim to be constructive and pleasant no matter what
- We should at least cite it
- Something that you and I have learned the hard way: it's not a good idea to go without an alternative theory
- The post-diction doesn't butter any parsnips for me!
- I await your answer with baited breath!
- Nil carborundum!
- A classification is only interesting if it is theory driven!
- PLEASE GET BACK TO ME WITH YOUR REVISIONS WITHIN A COUPLE OF WEEKS, OTHERWISE THE WHOLE THING WILL GO COLD FOR ME (AND POSSIBLY FOR YOU). ACTION THIS DAY!

And of course, past issues of Private Eye, badders in Jadwin Gym, lunches and walks at the Institute, Henri Dutilleux, tea at 56 William St, Tiger Noodles, Village Vanguard, Gramercy Tavern, various UCL anecdotes, prosecco, stories of your Russell-inspired felony, and miscellaneous gems of thought that do not travel well beyond the figurative 3-C-3.

Thanks, Phil.

Addendum: In an amusing twist, the editor of the present volume somehow elected to give me a revise and resubmit: "the author should include a photo to accompany the text". So here it goes:

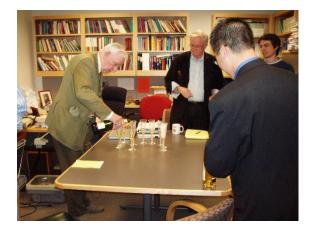


Figure: Another piece of Johnson-Lairdian wisdom: "The golden rule is that a Figure must be a stand-alone document"

### Paolo LEGRENZI & Maria LEGRENZI Università Ca' Foscari–Venezia & Università di Padova – Italy



First meeting with Phil in Bressanone Conference (1969). Changed the life of Maria, my life and, perhaps, also the life of my son Matteo.

Last meeting in Plymouth Conference of Thinking (Phil Johnson-Laird, Peter Wason, Jonathan Evans).





With Benjamin on the top of Marmolada







Legrenzi Family, 2023

Thank you Phil. Thank you forever!

Love, *Maria & Paolo* 

### Miguel LOPEZ ASTORGA Institute of Humanistic Studies, University of Talca, Chile

Thank you, Phil. Thank you very much for so many things! You are the person from whom I have learned more in different fields (there is no doubt about this!).

You are not only a great professor, you are also a great person.

Please keep writing. Many of us and science will be very grateful.

Receive my respect and my esteem.

#### Miguel



#### Guillermo MACBETH

CONICET – National Scientific and Technical Research Council of Argentina & UCA – Pontifical Catholic University of Argentina



#### The Mental Models Research Group in Argentina

#### THANK YOU SO MUCH, PHIL

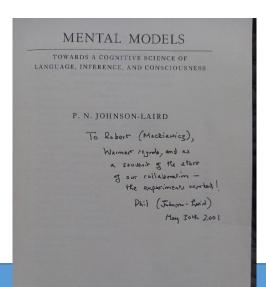
Chiara Pensiero
Paola Helguera
María Eva Ghiglione
Guillermo Macbeth
Fátima Schönfeld
María José Zinoni
María del Carmen Crivello

### Robert MACKIEWICZ Department of Psychology, SWPS University, Warsaw, Poland

#### Dear Phil

Thank you for

Encouragement



Hi Robert,

Here's some tips about good English prose. You wrote:

0. \*Abductive reasoning is particularly important because it is a generative process and may require reasoners to create a potentially novel solution to a problem they have never seen before."

The idea is OK, but the prose is clumsy. One flaw should be clear to you, e.g., try reading it out loud! You may run out of breath! But, did I not advise you to avoid adverbs? — They are dull. So, step 1, we eliminate the adverbs:

5. Abduction enables reasoners to create novel solutions to problems.

We have reduced 29 words to 9. Perhaps the shrinkage has eliminated an essential point. If so, we can restore it. The pedagogical point is: exposition in English prose should be clear and succinct.

Hope this account helps! Promise not to burden you with more analyses of this sort, but to focus on editing your draft. In fact, your English is excellent, and that's why it's worth pushing it further!

Cheers,

Pushing to work

From email of Oct, 2020

And all very friendly meetings



London, July, 2022)

Robert Madrieuc

#### Sergio MORENO-RÍOS Universidad de Granada, Spain

One of Phil's virtues is his respect, affection, and interest in students and their ideas, even when they come from the least advantaged ones.

I learned this on the first day I met Phil in 1998, when my thesis advisor, Juan García-Madruga, sent me to meet him at Green Hall in Princeton. I was excited to meet Phil and see his fabulous research lab. However, after looking at the bare tables and chairs, Phil asked me: What did you expect to find in a laboratory of thinking?

He was right - the best things can be simple, and the difficulty lies in envisioning them. Along with Ruth and many others, Phil has given me one of the greatest gifts one can receive: a theory, like augmented reality glasses, to analyse, understand, and enjoy the world. And this is just the beginning of a journey that, like good wines, will improve over the next 40 years.

PS - It seems that Phil created a haunted theory that extends his own kindness to the net of researchers who work with it.

Thank you, Phil.

Sergio



#### Mary NEWSOME

TBI and Concussion Center, Departiment of Neurology, University of Utah, Salt Lake City, UT USA

One afternoon in 1994, probably April, I received a phone call from Phil, then the Director of Graduate Studies at Princeton. I don't remember the details of my elation (and incredulousness) of hearing I was being admitted to the Psychology Department at Princeton, except for one small one—that incredible voice! Thankfully, for the years to come I had the good fortune to listen to that voice, be ever challenged, and learn whatever my modest reasoning skills allowed. I've worked in a few other places since Princeton, and every so often I find myself falsifying to better understand a situation or explaining to a student that an advisor I once had suggested the usefulness of thinking of problems "in the bath," and I tell them that that's my advice too.

I recently moved, and on the way to my job these days, I pass by these signs that make me smile and remind me to relish those years around your lab table:



A Very Happy Birthday, Phil! I know there'll be much thriving in your new year ahead!

Love, Mary



Just to say how much I appreciated having you as a PhD supervisor and collaborator!

You were, and are, such a great example and inspiration.

Thank you, Phil.

Jane



### Keith OATLEY University of Toronto, Canada

My name is Keith Oatley; I first met Phil and Mo in the late 1960s at the University of Sussex, where Phil had come for a job. Later I also got to know their son, Ben, and daughter, Dorothy.

Our families then both lived in Brighton, a seaside town south of London. Quickly we became friends. Later both families moved to North America, and we have remained close.

Phil and I have collaborated on several projects, perhaps centrally on developing a cognitive theory of human emotions, which is now one of the leading three or so in its field. We've also published papers about other topics, most recently one on the psychology of abstract visual art, and another on the psychology of poetry.

**Keith** 



## Isabel ORENES UNED- Universidad Nacional de Educación a Distancia , Madrid, España

Phil,

I would like to use this space to thank you for your big contribution to Psychology, in particular, the field of reasoning. Without a doubt, the model theory has helped us to understand how human thinks much better.

Also, you have been a TEACHER for many of us, a guide and a reference in our research.

And most importantly, you have always been an exceptional person. You have always taken care of me in an exquisite way and I remember very fondly my time at Princeton University as an important experience in my life, so thank you for giving me this opportunity. And the jazz concerts in New York:)

I wish you all the best,

Love, Isabel



I have chosen this photo from last January when I passed my exam for being a Senior Lecturer and I was honoured to have great friends around me.

#### Karalyn PATTERSON University of Cambridge, UK



To Phil: A delightful and stimulating colleague

To Phil & Mo: Wonderful and engaging friends

From: Karalyn & Roy

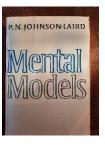


### Ana Cristina QUELHAS ISPA – Instituto Universitário, Lisbon, Portugal

#### Congratulations Phil, for the 40th Anniversary of Mental Model's Theory!



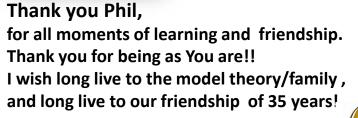




1983 - 2023



Phil, Paulo Legrenzi, & Cristina Quelhas ISPA, Lisbon, 1998





Phil, Cristina, & Csongor Dublin, 2006



Phil & Cristina, NY City, 2006



Phil, Vittorio Girotto, & Paolo Legrenzi London, 2012



Phil & Cristina Quelhas, NY City 2008



Phil, Célia Rasga, Juan & Teresa Garcia-Madruga. London, 2014



Mo & Phil, and other MM family members.

Dublin 2006



Phil & Cristina Quelhas London, 2014



Phil, Monica Bucciarelli, & Cristina Quelhas London, 2016



Phil, Ruth Byrne, & Cristina Quelhas London, 2016

# Marco RAGNI Technical University Chemnitz, Germany

I have been truly astonished by the immense scientific breadth embodied by Phil Johnson-Laird. As a leading psychologist, he tirelessly delves into the intricate workings of how humans construct and modify mental models, employing a range of sophisticated experimental techniques he has developed. Not only does he possess a keen analytical mind, but he also pioneers novel methods of analysis, whether it be statistical or computational, often introducing groundbreaking approaches that were previously unexplored.

What truly astounds me is his ability to effortlessly conquer diverse fields, such as the intricate realm of logics, including the latest modal logic advancements, or the complex realm of computer science, where he even finds the time to develop code himself. Furthermore, his diverse interests extend beyond his scientific endeavors, encompassing domains like music, such as his expertise in jazz improvisation, and literature. Engaging in conversations with Phil is always a captivating experience, as his knowledge spans far and wide, making every discussion exciting and thought-provoking.

Phil Johnson-Laird epitomizes a true universalist, leaving a remarkable impact on his friends, colleagues, and even scientific adversaries. He possesses a rare gift of transforming the thinking of those who interact with him. Few individuals possess such a remarkable talent, and even fewer can wield it on such a grand scale.

*Cent anni* to Phil, as his contributions and influence continue to shape and inspire the scientific community for years to come.



Thanks Phil, For all you give us!

## Antonio RIZZO Social Sciences, University of Siena, Siena, Italy

I first met Phil in person in the early 1990s at the Certosa di Pontignano, near Siena, and since then my ideas about the nature of human reasoning have never been the same.



By the way, the search for counterexamples helped me also in my everyday life. **Thank you PHIL!** 



# Walter SCHAEKEN Brain and Cognition, KU Leuven, Leuven, Belgium

Luck can take many different forms, and once in a while, it can even change the course of someone's life. I don't want to be too dramatic, but professionally *luck* did the latter for me.

In the late 1980s, my colleague Rianne and I were granted a four-month internship at the MRC Unit in Cambridge. We were given the task of selecting our respective supervisors. Our Leuven-based supervisor advised us: just pick a renowned name! When the two of us looked at the MRC-list, there were two names that stood out in terms of "celebrity-status": Alan Baddeley, of whom we heard in our courses on memory, and Phil Johnson-Laird, who had an impressive CV, but whose work had not been part of our curriculum in Leuven. Rianne had a very slight preference for work on memory, so I chose "the other guy". And that decision was a stroke of *luck*. Not only was the subject matter well-suited to me, but the supervisor, Phil, was an excellent fit for me as well. Phil is a person of exceptional intelligence, a vast array of knowledge on various subjects, but what sticks with me the most is his passion for sharing his knowledge and the ease with which you can collaborate with him. So, I was really *lucky* with my choice.

Now, however, I do run out of *luck*: I know that for this "book" pictures of Phil and me in Cambridge would have been nice. However, I looked everywhere, but I seem to *lack* them. What I have, however, is something a bit embarrassing. A friend of mine was (and is) a great drawing talent, and I asked him then to draw a card of me and Phil to thank Phil at the end my internship. At that time, I had no pictures of Phil, so I described him to Erik and I also send a drawing of Phil that I made with my *lack* of talent. Luckily for me, when Erik visited me in Cambridge, he had a glance of Phil, so he could use that for this excellent drawing. For an unknown reason, I did keep my original drawing of Phil and during my search now, I did find it as well (also weird). I doubted to share my unedited drawing of the MRC-Phil with you, but given this is a quite private book, I risk it and I apologize to Phil. There is also a wise lesson hidden in this story: not only *luck* can make a big difference, also one letter, since this story went from *luck* to *lack*.



# Walter SCHROYENS University of Leuven, Belgium

Dear Phil,

To mind comes a scene from the movie 'A beautifull mind' --- the title /per se/ says a lot.

Fellow 'Princetonians' offer the main character (Nobel price winner Oliver Nash) an item (their pen ... which is mightier than ...) as a sing of utter respect for his accomplishments.

So, to a truly beautiful mind like yours I wish to offer my thanks and acknowledgements for inspiring and stimulating my own dabbling in the cognitive science of reason(ing).

Sincerely,

Walter

# Tim SHALLICE University College London, London, UK

### Hello Phil

The meeting in your honour in July set me to thinking about the period from about 1966 to about 1971 when we were colleagues just beginning our academic careers in the Psychology Department at University College London. UCL was a very stimulating broader intellectual environment at the time with Richard Wollheim in Philosophy, Paul Feyerabend for a year in Philosophy of Science, JZ Young, Pat Wall and John O'Keefe in Anatomy, and so on, and all packed into the same small area. But the staff of the Psychology Department, apart from the intellectual maverick and polymath, Jonck(heere), who wrote virtually no papers, were not really leaders in their fields. In particular, there were no representatives of the embryonic areas of cognitive science, which were then about 10 years old. There was one exception, Peter Wason, who when we started work in the Department, was employed by the Medical Research Council and housed in distant buildings across the Euston Road, so he did not contaminate the other staff intellectually. Fortunately, like me he was a chess addict and so we often had lunch together in the canteen of Birkbeck College, and, of course, he was your supervisor.

I don't need to tell you how clever and creative Peter was, how full of intellectual puzzles and how fascinated by how we solve them or fail to. But Peter's repertoire for explaining problem-solving behaviour basically used lay or philosophical concepts. This was until the 1970 paper on insight in reasoning on the Four Card problem, which contains two flow diagram models of the processes involved. You, though, were the first author and clearly had originated that way of theorising, and that was the approach of the future.

1970 was also the year in which Elizabeth Warrington and I put forward an information-processing model of the relation between short-and long-term memory in neurological patients. The topics of the two papers, yours and ours, were very different but there is a family resemblance in their theoretical approaches. They both involved a cognitive science type of theorising.

Your way of thinking, your wide-ranging cognitive perspective and the visitors you helped to attract to the Department for year-long stays such as Paolo Legrenzi and Maria Sonino made the intellectual milieu of the Department much more agreeable to me than it would otherwise have been. So, in addition to congratulating you on a stellar set of papers and books, I would like to thank you for being a splendid colleague at a critical period of my academic career.

Tim



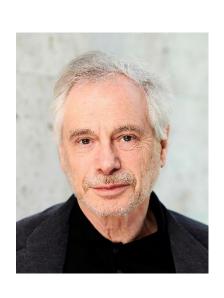
## Dear Phil,

Reading your early work and then *Mental Models* is, more than anything else, what got the anthropologist and linguist I was seriously interested in the psychology of reasoning. Attending the seminar you and Gil were giving in Princeton and discussing and collaborating with Vittorio in Paris got me more actively involved in the field.

On the many occasions I have had to exchange ideas with you over the years, your knowledge and wisdom made me humble and your attention and kindness made me bold.

I am so grateful!

Dan



# Alessandra TASSO Department of Human Studies, University of Ferrara, Ferrara, Italy

I first encountered the Mental Models Theory when I was a student in Psychology. Prof. Mazzocco, who was at the time translating the book "Mental Models: Towards a Cognitive Science of Language, Inference, and Consciousness" into Italian, explained a few parts in class. When I asked him to be my thesis advisor, he invited me to read the chapters of the book related to language. I remember being very intrigued by Gazdar's critique of Chomsky's Generative Transformational Linguistics. My dissertation, therefore, was based on part of Phil Johnson-Laird's book. When I was a PhD student, a second very important book 'Deduction' written by Phil and Ruth Byrne was published. My first experiments stemmed from reading Deduction, that later were published in the journal Cognition (Girotto, Mazzocco & Tasso, 1994). Deduction was also the book that stayed with me throughout my PhD. In fact, I spent several months in Dublin, working with Ruth Byrne, in particularly on the representation of counterfactual conditionals according to the Mental Models Theory. The experiments we conducted formed my doctoral thesis and some of these have been published (Byrne & Tasso, 1994; Byrne, Culhane & Tasso, 1995; Byrne & Tasso, 1999). Although I have not been able to publish work with Phil Johnson-Laird directly, I owe to the Mental Models Theory my experimental and scientific training, as well as meeting and associating with extraordinary people, to whom I owe a great deal and whom I love very much. Furthermore, I believe that Mental Model Theory is the only plausible theory of reasoning processes and also the most appealing. Thank you Phil.

Alessandra

## Lisa TORREANO Cognitive Cohesion, LLC, Houston, TX USA

Phil Johnson-Laird was the only professor I knew of through my Cognitive Science studies before acceptance into the Princeton Psychology department. His knack for understatement became clear early-on as I sat in a one-on-one with him sharing my plans for a study on idioms. "Idioms – tell me what you're thinking, I don't know much about them" he said. As I earnestly shared my, no doubt elementary thoughts, I noticed a book on the shelf behind him ... titled IDIOMS with a forward by no other than Phil. My confidence sank immediately. I often heard him advise others "You need to sit in the bath and think." He told me "Lisa, you need to read the literature." I decided to take that as a compliment!

I was and still am a fan of Phil & Mo!

All my love, Lisa Torreano



Lisa Torreano \*97 and Mary Newsome \*99 in Scotland after The Meeting in Memory of Vittorio Girotto at University College London, July 28-29 2016

# Catrinel Haught TROMP Rider University, Lawrenceville, NJ, USA

To Phil,
brilliant scientist,
creative musician,
virtuoso of English language, and
master of British humor:

Thank you for your mentorship, in graduate school and beyond.



Sam Glucksberg, Catrinel Tromp, Phil Johnson-Laird Princeton, May 2005

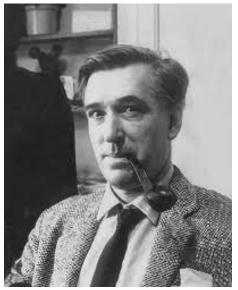
Barbara Tversky and Danny Kahneman in a kitschy but happy photo send our very best wishes to Phil along with gratitude for his generous friendship and elegant work on the nature of human reasoning which has influenced our own.



# Phil & Mo Thank you for 60 years of friendship!











Love from Liz & JD

#### André VANDIERENDONCK

Department Experimental Psychology, Ghent University, Ghent, Belgium

Dear Phil,

Growing old as such is not a personal merit, but building a life-long, rich and fruitful career, as you achieved, certainly is.

As the promotor of your *doctor honoris causa* title granted to you by Ghent University in 2002, I had the privilege of pronouncing a laudatio in which I evoked your main contributions to cognitive psychology, in particular in the field of reasoning.

There is no need to repeat these achievements here as others will do at length, but from a personal perspective I would like to highlight a few of your publications that had an important effect on my own research career.

Initially, I was working on categorisation processes. In this period I was impressed and my thinking about categorisation was influenced by a paper you published in 1984 (Johnson-Laird, P.N., Cheffin, R. & Herrmann, D.J., Only Connections: A critique of semantic networks, Psychological Bulletin, 1984, 96:2, 292—315.)

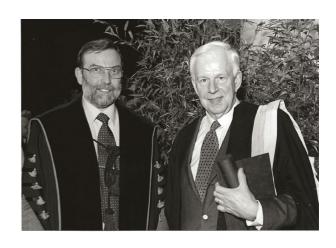
In the same period I read your book on mental models, and when I got involved in an inter-university project on time processing (1991—2001), I could profit from your work on mental models in reasoning to investigate the similarities and differences in linear reasoning with temporal and spatial relations.

There is a lot more I could say, but these few anecdotes testify to the effect you had on my own career and I wish to thank your for this.

Wishing you all the best,

André





Phil's Doctor Honoris Causa, with André. Gent Univeristy, 2022



Thank you Phil!