# **OCULAR VISUAL**

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**PRSR** 

#### AUDITORY

### PRSR

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**Anatomy of Visual Attention** 

Ocular refers to anything related to the eye or vision. It can be used as an adjective to describe something that is related to the eye, such as ocular muscles or ocular anatomy. It can also be used as a noun to refer to medical devices, such as ocular implants or ocular prosthetics.

One of the most common uses of the term ocular is in reference to the ocular lens, which is the lens located inside the eye that helps to focus light onto the retina. This lens is crucial for clear vision and any damage or deterioration of this lens can result in various vision problems.

Ocular diseases and conditions are numerous and varied, ranging from common conditions such as nearsightedness and farsightedness to more serious conditions such as cataracts, glaucoma, and macular degeneration. Treatment options for these conditions can range from corrective lenses and medications to surgery and other advanced procedures.

In summary, ocular refers to anything related to the eye or vision, including anatomy, medical devices, diseases, and conditions.

Human eyes perceiving is a complex process that involves various anatomical structures and correlations. It begins with the cornea, which is a transparent layer that covers the front of the eye.

The cornea helps to focus light onto the lens, which is located behind it. The lens then changes shape to further focus the light onto the retina, which is a thin layer of tissue at the back of the eye.

The retina contains photoreceptor cells called rods and cones, which are responsible for detecting light and transmitting visual information to the brain via the optic nerve. Rods are more sensitive to low levels of light and are responsible for night vision, while cones are responsible for color vision and visual acuity.

When light hits the photoreceptor cells, it triggers a series of chemical reactions that generate electrical signals. These signals are then transmitted to bipolar cells, which in turn transmit them to ganglion cells. The axons of the ganglion cells converge at the optic disc, where they form the optic nerve.

The optic nerve carries these electrical signals to the brain, specifically to an area called the visual cortex. Here, the signals are processed and interpreted as visual information, allowing us to see and perceive our surroundings.

In addition to these anatomical structures and correlations, there are also various factors that can affect how we perceive visual information.

These include factors such as lighting conditions, color contrast, and visual acuity.

Overall, human eyes perceiving is a complex process that involves multiple anatomical structures and correlations working together to generate visual information that is interpreted by the brain.

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Ocular Definition & MeaningThe meaning of
OCULAR is done or perceived by the eye. How to
use ocular in a

sentence.www.merriam-webster.com

Ocular - Definition, Meaning & SynonymsOcular things have something to do with eyes or seeing. If you have what your doctor describes as "ocular pain," it means your eye

hurts.www.vocabulary.comOcular Definition & Meaningocular · of, relating to, or for the eyes: ocular movements. · of the nature of an eye: an ocular organ. · performed or perceived by the eye or eyesight.www.dictionary.com

Chapter 14: Visual Processing: Eye and RetinaIn this chapter you will learn about how the visual system initiates the processing of external stimuli. The chapter will familiarize you with measures of ...nba.uth.tmc.eduHow the Eyes WorkAll the different parts of your eyes work together to help you see. First, light passes through the cornea (the clear front layer of the ...www.nei.nih.govThe Visual System - Introduction to PsychologyDescribe the basic anatomy of the visual system; Discuss how rods and cones contribute to different aspects of vision; Describe how monocular and binocular ...openeducationalberta.ca

A VISUAL
SHORT-TERM
MEMORY
ADVANTAGE FOR
OBJECTS OF
EXPERTISE

KIM M. CURBY, KUBA GLAZEK, AND ISABEL GAUTHIER HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC4159943/?Rep ORT=READER ABSTRACT
VISUAL
SHORT-TERM
MEMORY (VSTM)
IS LIMITED,
ESPECIALLY FOR
COMPLEX
OBJECTS, ITS

			CAPACITY, HOWEVER, IS GREATER FOR FACES THAN FOR OTHER OBJECTS, AN ADVANTAGE THAT MAY STEM FROM THE HOLISTIC NATURE OF FACE PROCESSING.
CATEGORIZATION TRAINING RESULTS IN SHAPE- AND CATEGORY-SELEC TIVE HUMAN NEURAL PLASTICITY	XIONG JIANG, EVAN BRADLEY, [], AND MAXIMILIAN RIESENHUBER	HTTPS://WWW.n CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC1989663/?REP ORT=READER	OBJECT CATEGORY LEARNING IS A FUNDAMENT  AL ABILITY, REQUIRING COMBINATION OF "BOTTOM-UP" STIMULUS-DRIVE IN WITH "TOP-DOWN" TASK-SPECIFIC INFORMATION. IT THEREFORE MAY BE A FRUITFUL DOMAIN FOR STUDY OF THE GENERAL NEURAL MECHANISMS UNDERLYING CORTICAL PLASTICITY.
CORTICAL MECHANISMS OF COGNITIVE	Benjamin J. TAMBER-ROSENA U, MICHAEL	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P	ABSTRACT ORGANISMS OPERATE WITHIN

**CONTROL FOR** ESTERMAN, [...], MC3158824/?ReP **BOTH A** SHIFTING and steven ORT=READER PERCEPTUAL **DOMAIN OF ATTENTION IN YANTIS VISION AND OBJECTS AND** events, and a WORKING Memory mnemonic **DOMAIN OF PAST** experiences **AND FUTURE GOALS. EACH** DOMAIN Requires **DELIBERATE** selection of **TASK-RELEVANT** information. THROUGH **DepLoyments of external** (PERCEPTUAL) **AND INTERNAL** (mnemonic) ATTENTION. Respectively. LITTLE IS KNOWN **ABOUT THE CONTROL OF ATTENTION SHIFTS IN** WORKING memory, or **WHETHER VOLUNTARY CONTROL OF ATTENTION IN THESE TWO DOMAINS IS SUBSERVED BY A** common or by

			DISTINCT FUNCTIONAL NETWORKS.
Decoding Reveals the Contents of Visual Working Memory in early Visual areas	STEPHENIE A. HARRISON AND FRANK TONG	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC2709809/?Re PORT=READER	ABSTRACT VISUAL WORKING MEMORY PROVIDES AN ESSENTIAL LINK BETWEEN PERCEPTION AND HIGHER COGNITIVE FUNCTIONS, ALLOWING FOR THE ACTIVE MAINTENANCE OF INFORMATION REGARDING STIMULI NO LONGER IN VIEW1,2. RESEARCH SUGGESTS THAT SUSTAINED ACTIVITY IN HIGHER-ORDER PREFRONTAL, PARIETAL, INFEROTEMPORA L AND LATERAL OCCIPITAL AREAS SUPPORTS VISUAL MAINTENANCE3-1 1, AND MAY ACCOUNT FOR WORKING

DECODING THE VISUAL AND SUBJECTIVE	YUKIYASU KAMITANI AND FRANK TONG	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P	memory's Limited CAPACITY TO HOLD UP TO 3-4 ITEMS9-11.  THE POTENTIAL FOR HUMAN NEUROIMAGING
CONTENTS OF THE HUMAN BRAIN		MC1808230/?ReP ORT=READER	TO READ-OUT THE DETAILED CONTENTS OF A PERSON'S MENTAL STATE HAS YET TO BE FULLY EXPLORED. WE INVESTIGATED WHETHER THE PERCEPTION OF EDGE ORIENTATION, A FUNDAMENTAL VISUAL FEATURE, CAN BE DECODED FROM HUMAN BRAIN ACTIVITY MEASURED WITH FUNCTIONAL MAGNETIC RESONANCE IMAGING (FMRI).
DISCRETE FIXED-RESOLUTIO IN REPRESENTATION S IN VISUAL WORKING	Weiwei Zhang And Steven J. LUCK	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC2588137/?REP ORT=READER	ABSTRACT LIMITS ON THE STORAGE CAPACITY OF WORKING MEMORY

Memory			SIGNIFICANTLY IMPACT COGNITIVE ABILITIES IN A WIDE RANGE OF DOMAINS1, BUT THE NATURE OF THESE CAPACITY LIMITS HAS BEEN ELUSIVE2.
DYNAMIC SHIFTS OF LIMITED WORKING MEMORY RESOURCES IN HUMAN VISION	PAUL M. BAYS AND MASUD HUSAIN	HTTPS://WWW.n CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC2532743/?REP ORT=READER	ABSTRACT OUR ABILITY TO REMEMBER WHAT WE HAVE SEEN IS REMARKABLY LIMITED. MOST CURRENT VIEWS CHARACTERIZE THIS LIMIT AS A FIXED NUMBER OF ITEMS - ONLY 4 OBJECTS - THAT CAN BE HELD IN VISUAL WORKING MEMORY.
Enumeration Versus multiple object Tracking: The Case of Action Video Game Players	C.S. GREEN AND D. BAVELIER	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC2896820/?RE PORT=READER	ABSTRACT HERE, WE DEMONSTRATE THAT ACTION VIDEO GAME PLAY ENHANCES SUBJECTS' ABILITY IN TWO TASKS THOUGHT TO INDICATE THE

			NUMBER OF ITEMS THAT CAN BE APPREHENDED. USING AN ENUMERATION TASK, IN WHICH PARTICIPANTS HAVE TO DETERMINE THE NUMBER OF QUICKLY FLASHED SQUARES, ACCURACY MEASURES SHOWED A NEAR CEILING PERFORMANCE FOR LOW NUMEROSITIES AND A SHARP DROP IN PERFORMANCE ONCE A CRITICAL NUMBER OF SQUARES WAS REACHED.
NEURAL REPRESENTATION OF TARGETS AND DISTRACTORS DURING OBJECT INDIVIDUATION AND IDENTIFICATION	SU KEUN JEONG AND YAODA XU	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC3736830/?ReP ORT=READER	ABSTRACT IN MANY EVERYDAY ACTIVITIES, WE NEED TO ATTEND AND ENCODE MULTIPLE TARGET OBJECTS AMONG DISTRACTOR OBJECTS. FOR

			example, when driving a car on a busy street, we need to simultaneously attend objects such as traffic signs, pedestrians, and other cars, while ignoring colorful and flashing objects in display windows.
SELECTING AND PERCEIVING MULTIPLE VISUAL OBJECTS	YAODA XU AND MARVIN M. CHUN	HTTPS://WWW.n CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC3213861/?ReP ORT=READE	ABSTRACT TO EXPLAIN HOW MULTIPLE VISUAL OBJECTS ARE ATTENDED AND PERCEIVED, WE PROPOSE THAT OUR VISUAL SYSTEM FIRST SELECTS A FIXED NUMBER OF ABOUT FOUR OBJECTS FROM A CROWDED SCENE BASED ON THEIR SPATIAL INFORMATION (OBJECT INDIVIDUATION) AND THEN ENCODE THEIR DETAILS (OBJECT

			identification).
THE ROLE OF THE SUPERIOR INTRAPARIETAL SULCUS IN SUPPORTING VISUAL SHORT-TERM MEMORY FOR MULTIFEATURE OBJECTS	YAODA XU	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC6673209/?ReP ORT=READER	ABSTRACT EVERYDAY OBJECTS CAN VARY IN A NUMBER OF FEATURE DIMENSIONS, SUCH AS COLOR AND SHAPE. TO IDENTIFY AND RECOGNIZE A PARTICULAR OBJECT, OFTEN TIMES WE NEED TO ENCODE AND STORE MULTIPLE FEATURES OF AN OBJECT SIMULTANEOUSLY.
TOPOGRAPHIC MAPS OF VISUAL SPATIAL ATTENTION IN HUMAN PARIETAL CORTEX	MICHAEL A. SILVER, DAVID RESS, AND DAVID J. HEEGER	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC2367310/?REP ORT=READER	ABSTRACT FUNCTIONAL MAGNETIC RESONANCE IMAGING (FMRI) WAS USED TO MEASURE ACTIVITY IN HUMAN PARIETAL CORTEX DURING PERFORMANCE OF A VISUAL DETECTION TASK IN WHICH THE FOCUS OF ATTENTION SYSTEMATICALLY

			TRAVERSED THE VISUAL FIELD.
VISUAL GROUPING IN HUMAN PARIETAL CORTEX	YAODA XU AND MARVIN M. CHUN	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PINC/ARTICLES/P MC2141851/?REP ORT=READER	ABSTRACT TO EFFICIENTLY EXTRACT VISUAL INFORMATION FROM COMPLEX VISUAL SCENES TO GUIDE BEHAVIOR AND THOUGHT, VISUAL INPUT NEEDS TO BE ORGANIZED INTO DISCRETE UNITS THAT CAN BE SELECTIVELY ATTENDED AND PROCESSED. ONE IMPORTANT SUCH SELECTION UNIT IS VISUAL OBJECTS.
VISUAL TOPOGRAPHY OF HUMAN INTRAPARIETAL SULCUS	JASCHA D. SWISHER, MARK A. HALKO, [], AND DAVID C. SOMERS	HTTPS://WWW.N CBI.NLM.NIH.GOV/ PMC/ARTICLES/P MC6672354/?REP ORT=READER	ABSTRACT HUMAN PARIETAL CORTEX IS IMPLICATED IN A WIDE VARIETY OF SENSORY AND COGNITIVE FUNCTIONS, YET ITS PRECISE ORGANIZATION REMAINS UNCLEAR. VISUAL

FIELD MAPS **PROVIDE A** POTENTIAL STRUCTURAL **BASIS FOR Descriptions of FUNCTIONAL** organization. HTTPS://WWW. ABSTRACT **ATTENTION** ATTENDING TO A **NCBI.NLM.NIH.G ALTERS** PARTICULAR FEATURE **AND FRED** OV/PMC/ARTIC Feature Les/PMC66326 **MODULATES THE ACTIVITY** SPACE IN 46/?Report=R OF NEURONS THROUGHOUT MOTION **eader** THE VISUAL FIELD WITH THE Result that relevant PROCESSING FEATURES ARE ENHANCED **WHILE IRRELEVANT** Features are SUPPRESSED. DO THESE **MODULATORY INFLUENCES** merely lead to a gating OF RELEVANT FEATURES. OR DOES ATTENTION HAVE A DIRECT IMPACT ON THE Representation of FEATURE SPACE. LEADING TO A DIFFERENT PERCEPT **depending on the content of attention?** We observed that DIRECTION ESTIMATES OF

THE STATIC MOTION AFTEREFFECT DRASTICALLY CHANGE WHEN HUMAN OBSERVERS ATTEND TO A STIMULUS WHOSE MOTION DIRECTION DIFFERS FROM THE ONE OF THE ADAPTOR. THIS OBSERVATION SUGGESTS THAT Feature-Based ATTENTION MIGHT OPERATE BY LOCAL **MAGNIFICATIONS OF** Feature space Between ReLevant and IRReLevant Features. ATTENTION YAFFA HTTPS://WWW. ADDITIONAL ARTICLE Yeshurun **NCBI.NLM.NIH.G** INFORMATION IMPROVES OR And OV/PMC/ARTIC **IMPAIRS** MARISA Les/PMc38255 ABSTRACT VISUAL CARRASCO 08/?Report=R covert attention, the Performanc SELECTIVE PROCESSING OF **eader** VISUAL INFORMATION AT A e By GIVEN LOCATION IN THE enhancing ABSENCE OF EYE SPATIAL movements. Improves Resolution Performance in Several TASKS. SUCH AS VISUAL SEARCH AND DETECTION OF LUMINANCE AND VERNIER TARGETS1-6. AN IMPORTANT UNSETTLED ISSUE IS WHETHER THIS IMPROVEMENT IS DUE TO A Reduction in noise (INTERNAL OR external)6-9. A change

IN DECISIONAL CRITERIA10.11. OR SIGNAL enhancement3,5,12. Here **We SHOW THAT ATTENTION CAN AFFECT PERFORMANCE** BY SIGNAL ENHANCEMENT. FOR A TEXTURE segregation task in **WHICH PERFORMANCE IS** ACTUALLY DIMINISHED WHEN SPATIAL RESOLUTION IS TOO HIGH. WE OBSERVED THAT ATTENTION IMPROVED PERFORMANCE AT PERIPHERAL LOCATIONS WHERE SPATIAL Resolution was too low. **BUT IMPAIRED** PERFORMANCE AT CENTRAL LOCATIONS WHERE SPATIAL Resolution was too HIGH4-12. THE counterintuitive IMPAIRMENT OF PERFORMANCE THAT WE FOUND AT THE CENTRAL Retinal Locations APPEARS TO HAVE ONLY one possible **explanation: attention** enhances spatial Resolution. ECCENTRICITY HTTPS://WWW. **ADDITIONAL ARTICLE NCBI.NLM.NIH.G** effects in OV/PMC/ARTIC INFORMATION Vision and **Les/PMC51278 ATTENTION** 99/ ABSTRACT

FUNCH
STAUGAARD,
ANDERS
PETERSEN,
AND SIGNE
VANGKILDE

STIMULUS ECCENTRICITY AFFECTS VISUAL PROCESSING IN MULTIPLE WAYS. PERFORMANCE ON A VISUAL TASK IS OFTEN BETTER WHEN TARGET STIMULI ARE PRESENTED **NEAR OR AT THE FOVEA COMPARED TO THE RETINAL** PERIPHERY. FOR INSTANCE. Reaction times and error rates are often Reported to increase WITH INCREASING eccentricity. Such FINDINGS HAVE BEEN INTERPRETED AS PURELY VISUAL. REFLECTING Neurophysiological DIFFERENCES IN CENTRAL AND PERIPHERAL VISION. AS WELL AS ATTENTIONAL, Reflecting a central BIAS IN THE ALLOCATION OF ATTENTIONAL RESOURCES. OTHER FINDINGS INDICATE THAT IN SOME CASES. INFORMATION FROM THE Periphery is PREFERENTIALLY PROCESSED. SPECIFICALLY. IT HAS BEEN SUGGESTED THAT VISUAL PROCESSING SPEED INCREASES WITH INCREASING STIMULUS **eccentricity**, and that THIS POSITIVE correlation is reduced.

BUT NOT ELIMINATED. WHEN THE AMOUNT OF CORTEX ACTIVATED BY A STIMULUS IS KEPT CONSTANT BY MAGNIFYING PERIPHERAL STIMULI (CARRASCO ET AL., 2003). IN THIS STUDY. We INVESTIGATED EFFECTS OF eccentricity on visual ATTENTIONAL CAPACITY WITH AND WITHOUT magnification. using COMPUTATIONAL modeling Based on Bundesen's (1990) THEORY OF VISUAL ATTENTION, OUR RESULTS SUGGEST A GENERAL DECREASE IN ATTENTIONAL CAPACITY WITH INCREASING STIMULUS eccentricity, IRRESPECTIVE OF magnification. We DISCUSS THESE RESULTS IN Relation to the PHYSIOLOGY OF THE VISUAL SYSTem. THE USE OF DIFFERENT PARADIGMS FOR INVESTIGATING VISUAL PERCEPTION ACROSS THE VISUAL FIELD. AND THE USE OF DIFFERENT STIMULUS MATERIALS (E.G. GABOR PATCHES VS. LETTERS).

Keywords: Spatial

WITH TEXTURE DISPLAYS IN WHICH THE TARGET **APPEARS AT SEVERAL** eccentricities. We found THAT SUSTAINED ATTENTION CAN ALSO AFFECT TEXTURE segmentation. But UNLIKE TRANSIENT ATTENTION, SYSTAINED ATTENTION IMPROVED PERFORMANCE AT ALL eccentricities. COMPARING THE EFFECT OF PRE-CUES AND POST-CUES INDICATED THAT THE Benefit Brought About BY SUSTAINED ATTENTION IS SIGNIFICANTLY GREATER THAN THE EFFECT OF LOCATION UNCERTAINTY Reduction. These FINDINGS INDICATE THAT SUSTAINED ATTENTION IS A **more Flexible** mechanism that can OPTIMIZE PERFORMANCE AT ALL ECCENTRICITIES IN A TASK WHERE Performance is CONSTRAINED BY SPATIAL Resolution.

Keywords: covert Attention, sustained Attention, texture Segmentation, spatial Vision

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EFFECTS OF
INTERRUPTION
ON EYE
MOVEMENTS
AND
COMPREHENSION
DURING READING
ON DIGITAL
DEVICES,
LEARNING AND
INSTRUCTION

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THIERRY
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#### ABSTRACT

THE GROWING USE OF DIGITAL DEVICES BRINGS ABOUT INTERRUPTIONS DURING READING. THE AIM OF THE PRESENT STUDY IS TO OBSERVE THE consequences of an INTERRUPTION ON READING BEHAVIOR AND TEXT comprehension when THE INFORMATION THAT IS evaluated is the INFORMATION THAT IS Being Read at the time THE INTERRUPTION occurs. Eye movements (mean number of FIXATIONS, REGRESSIVE FIXATIONS AND MEAN FIXATION DURATION) WERE RECORDED WHILE READING FOUR LONG TEXTS. READING WAS INTERRUPTED BY AN ARITHMETIC VERIFICATION TASK EITHER IN THE MIDDLE OF A PARAGRAPH

(INTRA-PARAGRAPH condition) or between TWO SUCCESSIVE PARAGRAPHS (INTER-PARAGRAPH condition). The analysis **OF THE EYE MOVEMENTS** SHOWED MORE REREADING Behaviors when an INTERRUPTION OCCURRED. THE PARTICIPANTS WHO UNDERSTOOD THE TEXT Best were also those WHO REREAD THE MOST. THE COMPREHENSION PERFORMANCES WERE NOT AFFECTED BY THE interruption, IRRESPECTIVE OF ITS Position (inter- or INTRA-PARAGRAPH). THIS PRESERVATION OF Performance is DISCUSSED IN RELATION TO LTWM THEORY.

The role of alpha

Joshua J.
Foster

https://www.nc bi.nlm.nih.gov/ pmc/articles/P Covert spatial
attention allows us
to prioritize visual
processing at

oscillations

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attention:

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Limited

evidence for

2

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relevant locations.

A fast growing literature suggests that alpha-band (8-12 Hz) oscillations play a key role in this core cognitive process. It is clear that alpha-band activity tracks

ooth the locus and timing of covert

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characterize the

computational role
of alpha activity in
spatial attention.

Keywords: spatial attention, alpha, oscillations, suppression, inhibition

https://www.nc bi.nlm.nih.gov/ pmc/articles/P MC3222829/?re port=reader

**Abstract** Rationale Nicotine has been shown to improve both memory and attention when assessed through speeded motor responses. Since very few studies have assessed effecPrompt but inefficient: nicotine differentially modulates discrete components of attention Signe Vangkilde, Claus Bundesen, and Jennifer T. Coullts of nicotine on visual attention using measures that are uncontaminated by motoric effects,

nicotine's attentional

effects may, at least partially, be due to speeding of motor function.

Objectives
Using an unspeeded,
accuracy-based test,
the CombiTVA
paradigm, we examined
whether nicotine
enhances attention
when it is measured
independently of motor
processing.

Methods We modelled data with a computational theory of visual attention (TVA; Bundesen 1990) so as to derive independent estimates of several distinct components of attention from performance of the single task: threshold of visual perception, perceptual processing speed, visual short-term memory storage capacity and top-down controlled selectivity. Acute effects of nicotine (2 mg gum) on performance were assessed in 24 healthy young non-smokers in a

placebo-controlled counterbalanced, crossover design.
Chronic effects of nicotine were investigated in 24 ageand education-matched minimally deprived smokers.

Results Both an acute dose of nicotine in non-smokers and chronic nicotine use in temporarily abstaining smokers improved perceptual thresholds but slowed subsequent perceptual speed. Moreover, both acute and chronic nicotine use reduced attentional selectivity though visual short-term memory capacity was unimpaired.

Conclusions
Nicotine differentially
affected discrete
components of visual
attention, with acute
and chronic doses
revealing identical
patterns of
performance. We
challenge prior reports
of nicotine-induced

speeding of information processing by showing, for the first time, that nicotine slows down perceptual processing speed when assessed using accuracy-based measures of cognitive performance.

Keywords: Nicotine, Attention, Cognition, Perceptual processing speed, Selectivity, Memory, Smoker, Non-smoker, Human

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