

PERCEPTION DE VOIX CONCURRENTES : À LA RECHERCHE DU SEGMENT PERDU...

Etienne Gaudrain <e.p.c.gaudrain@umcg.nl>

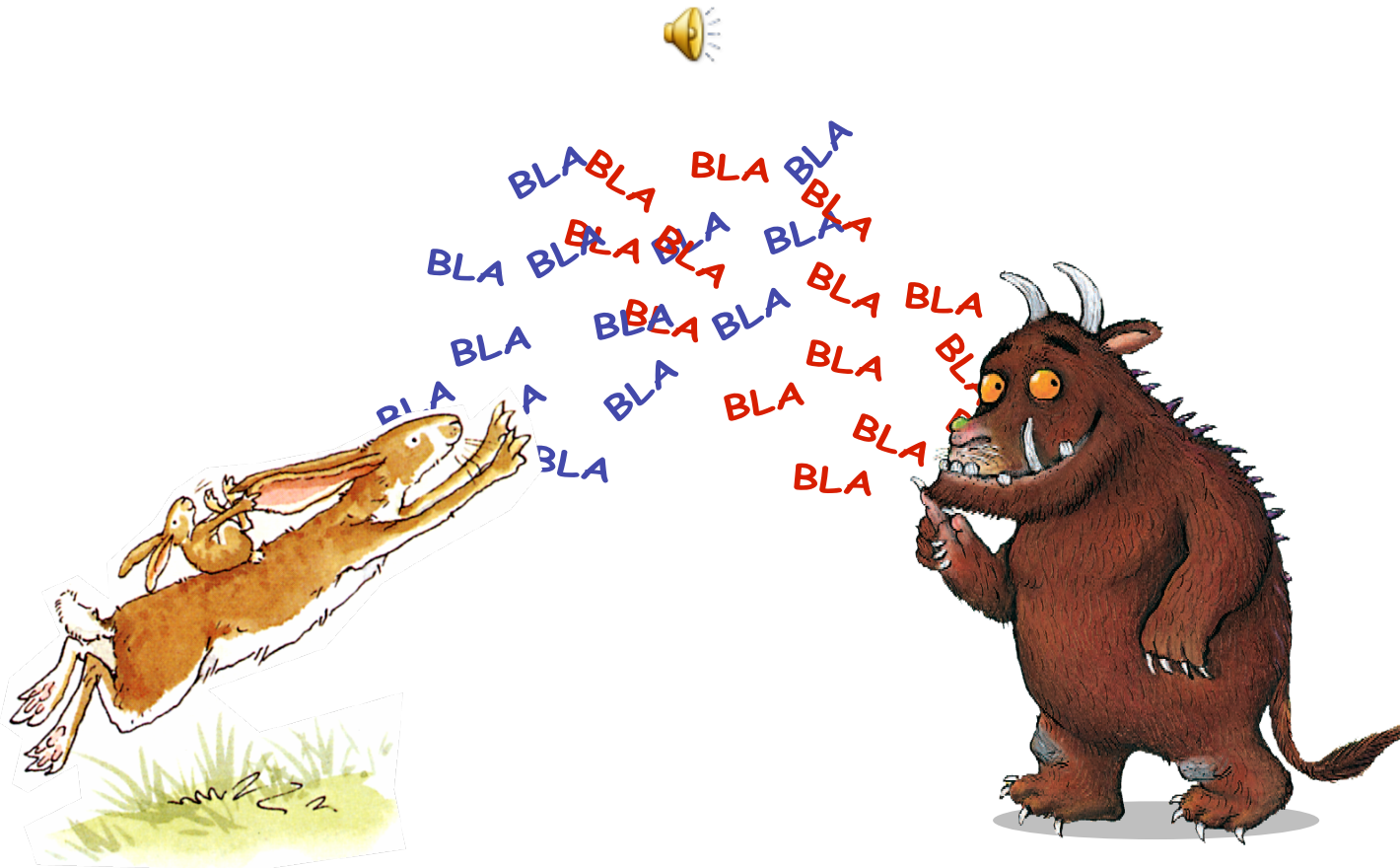


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Parole dans le bruit / Voix concurrentes



Adrian Dunbar
Guess How Much I Love You

Imelda Staunton
The Gruffalo's Child

Parole dans le bruit / Voix concurrentes



- “ À la fois essentiel à l’acquisition du langage et très long à acquérir complètement
- “ Capacité qui décroît rapidement avec l’âge chez l’adulte
- “ Devient quasiment impossible en cas de perte auditive



Adrian Dunbar
Guess How Much I Love You



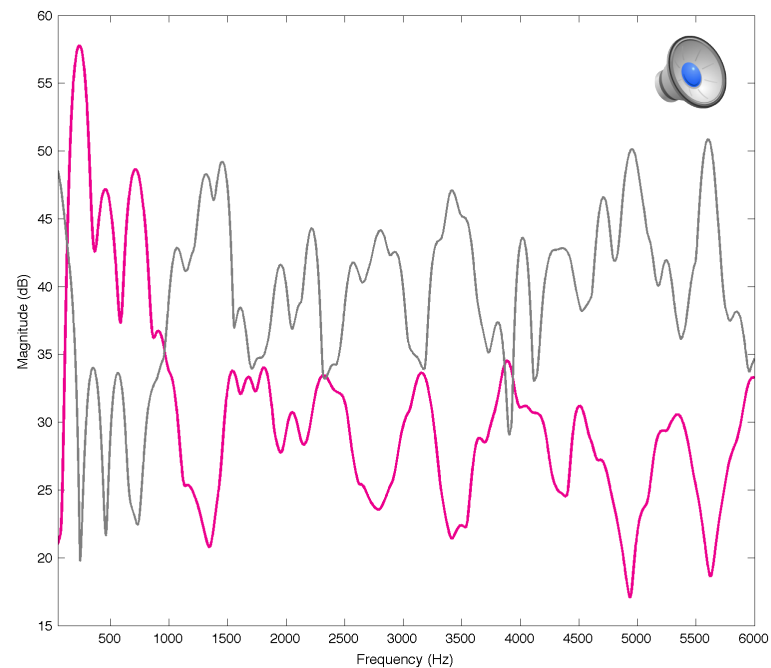
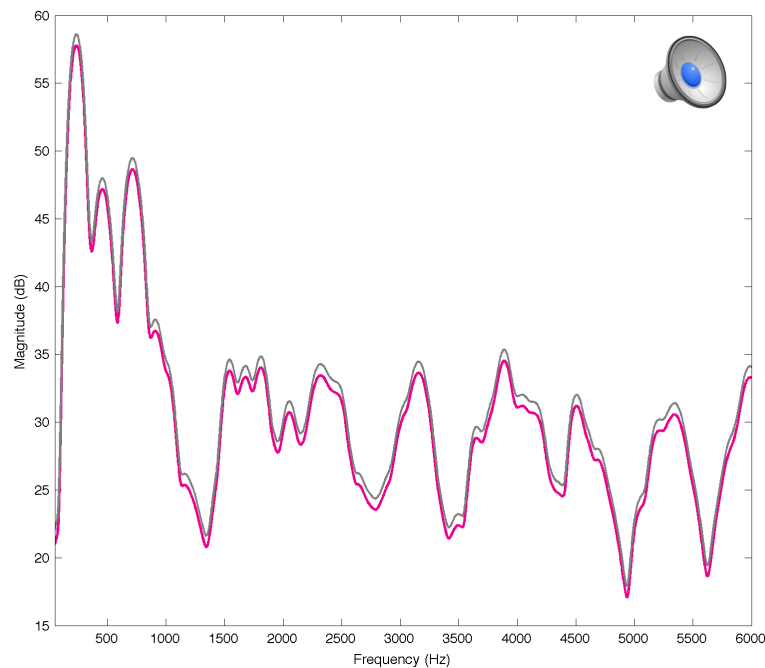
Imelda Staunton
The Gruffalo's Child

Décompositions / Simplifications

“ Masquage Énergétique vs. Informationnel

“... it is necessary to conclude that
the crucial factor is the masking spectrum.”

Miller, 1947, “The masking of speech.” *Psychol. Bull.* 44: 105-129.



Décompositions / Simplifications

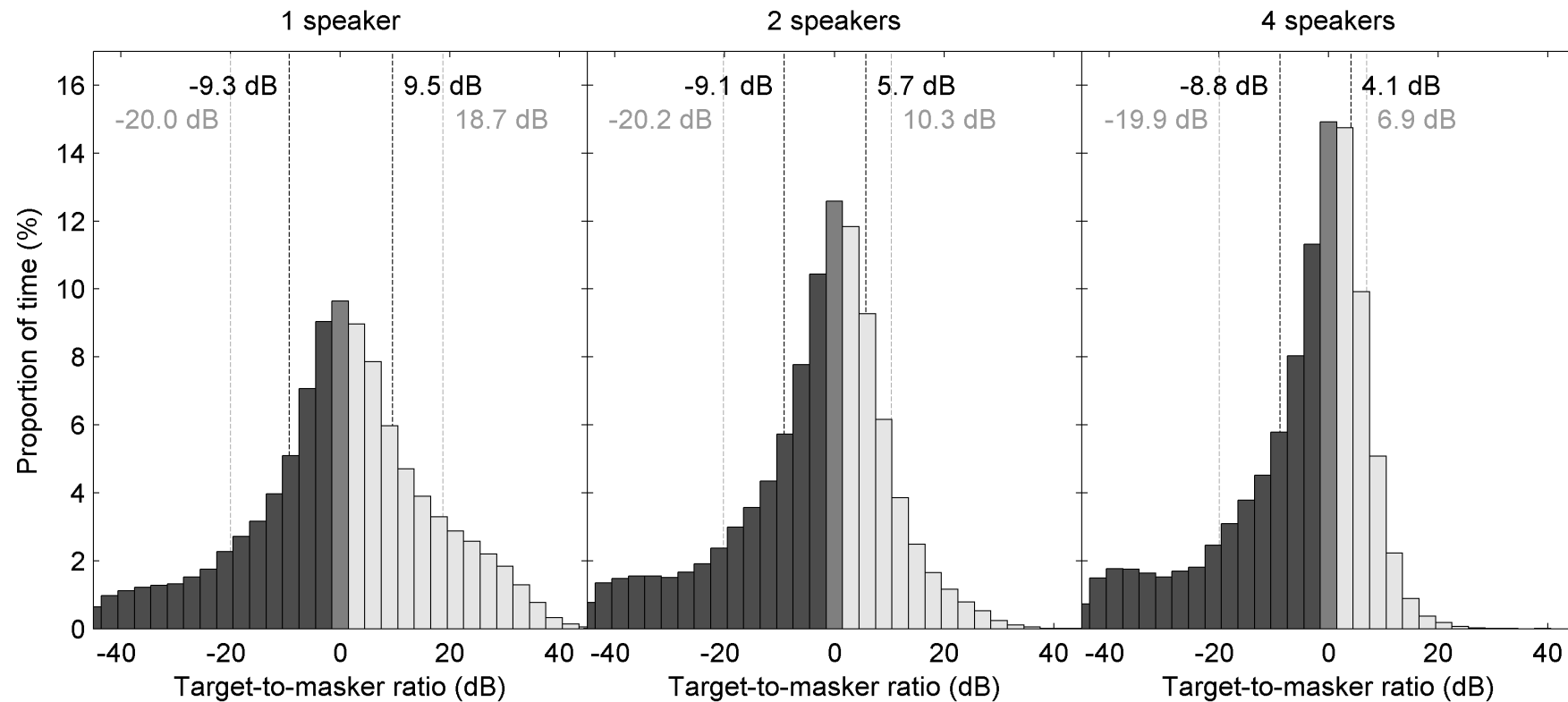
“ Listening in the dips / Glimpsing



Buus, 1985

Rapport cible/masque en fonction du temps

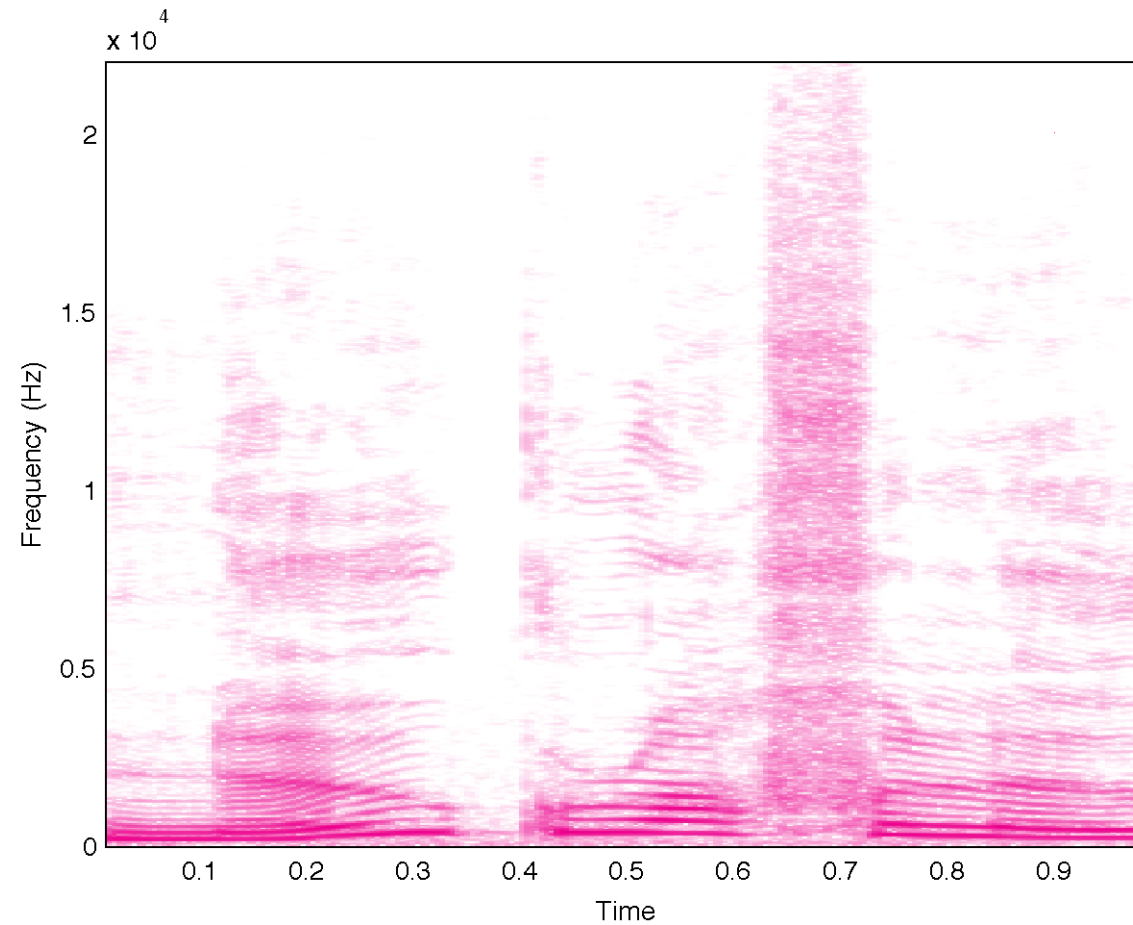
Cible en compétition avec :



Gaudrain et Carlyon, 2013, JASA

Décompositions / Simplifications

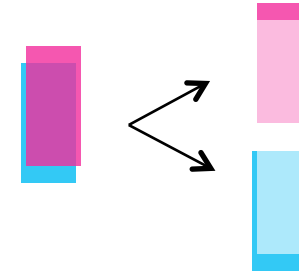
“ Listening in the dips / Glimpsing



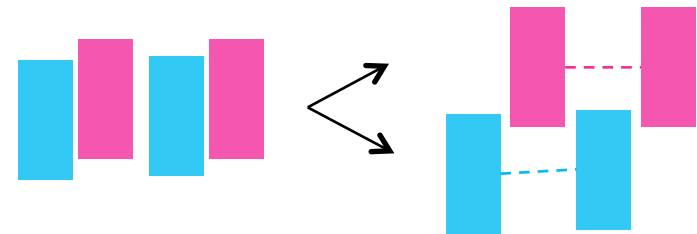
Cooke, 2006

Analyse des scènes auditives

“ Ségrégation simultanée



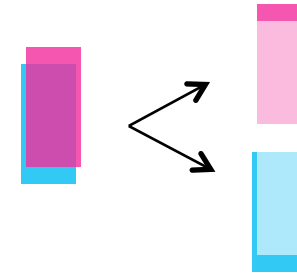
“ Ségrégation séquentielle



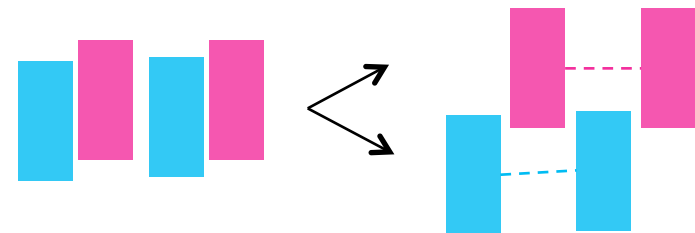
Bregman, 1990

Auditory scene analysis

“ Ségrégation simultanée

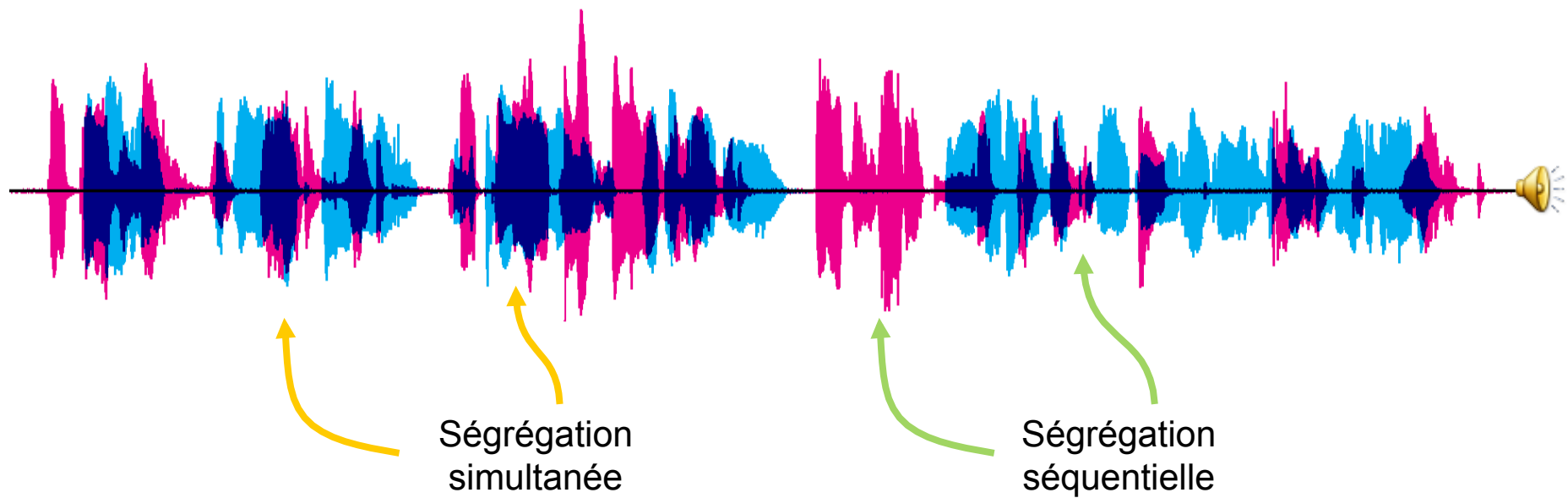


“ Ségrégation séquentielle



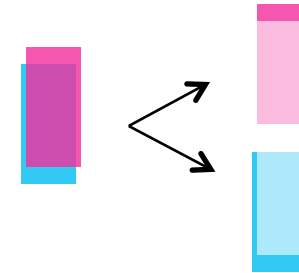
Bregman, 1990

2 voix concurrentes

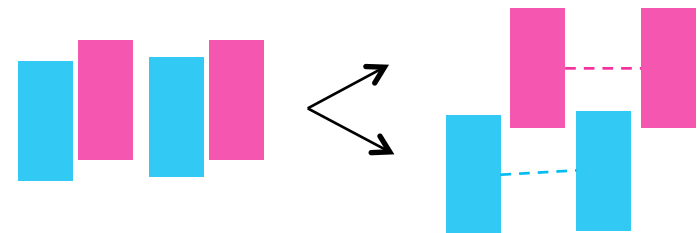


Ségrégation / Inférence

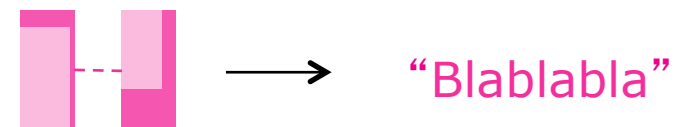
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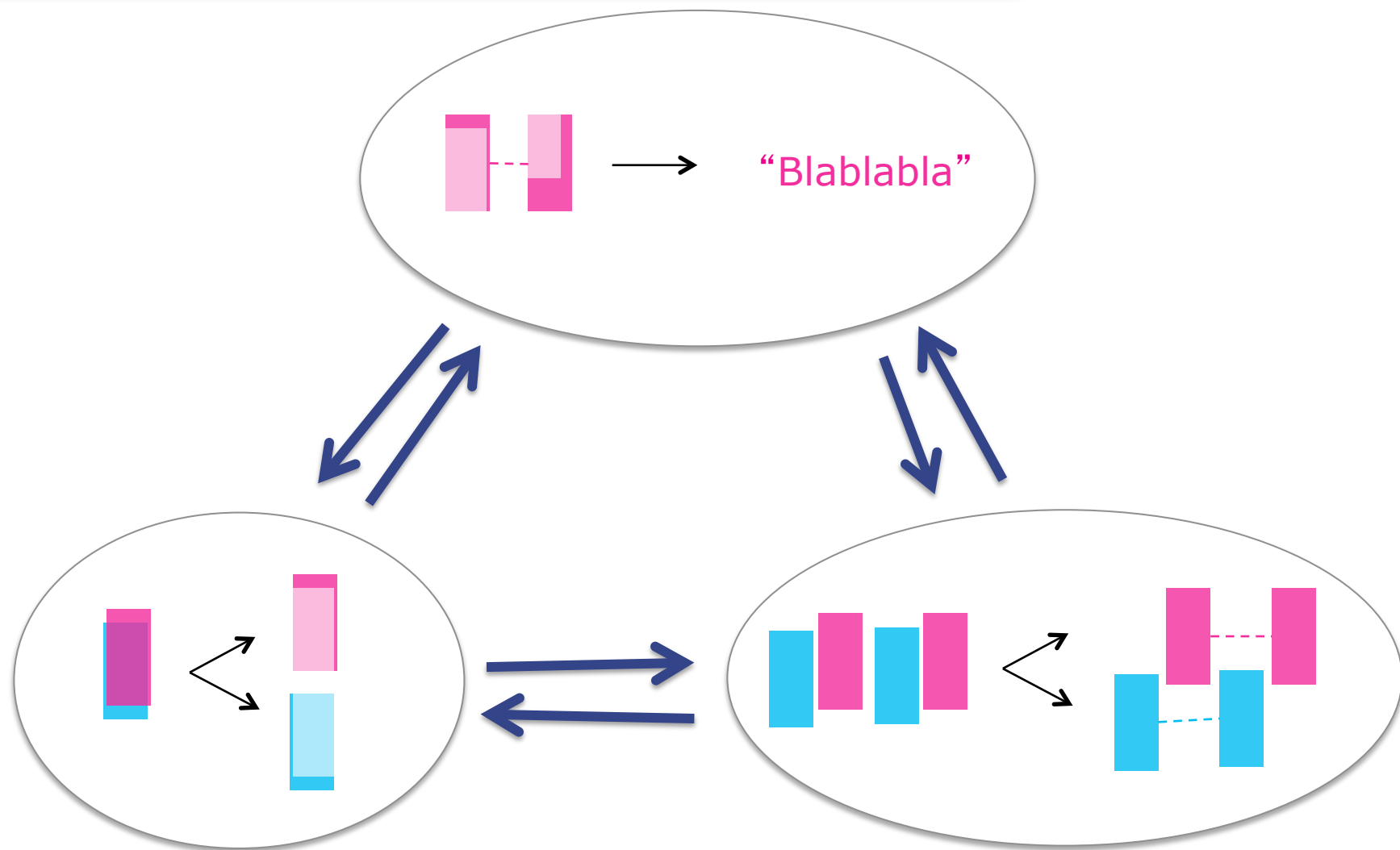
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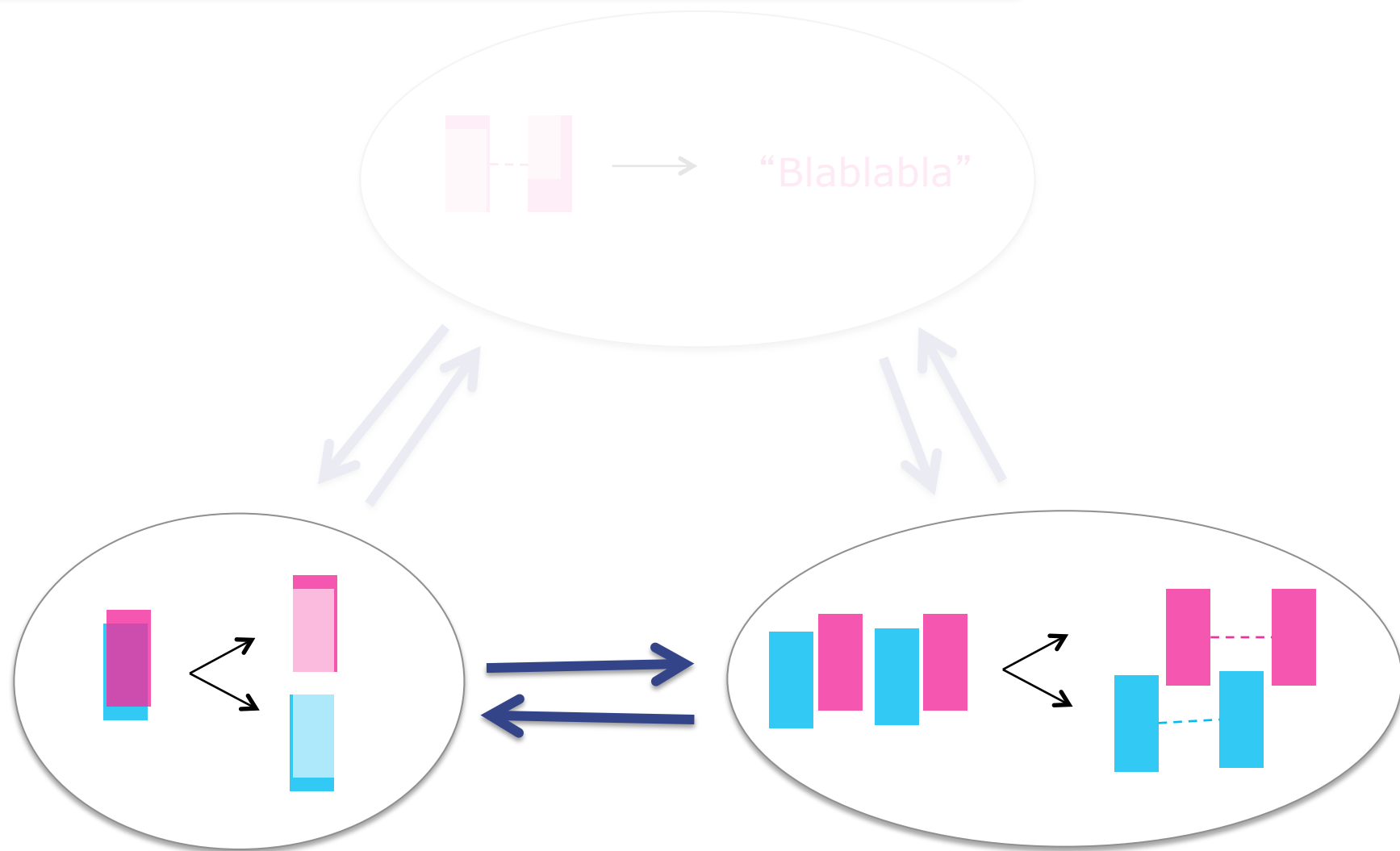
“ Inférence /
Restoration phonémique



Auditory Speech Scene Analysis

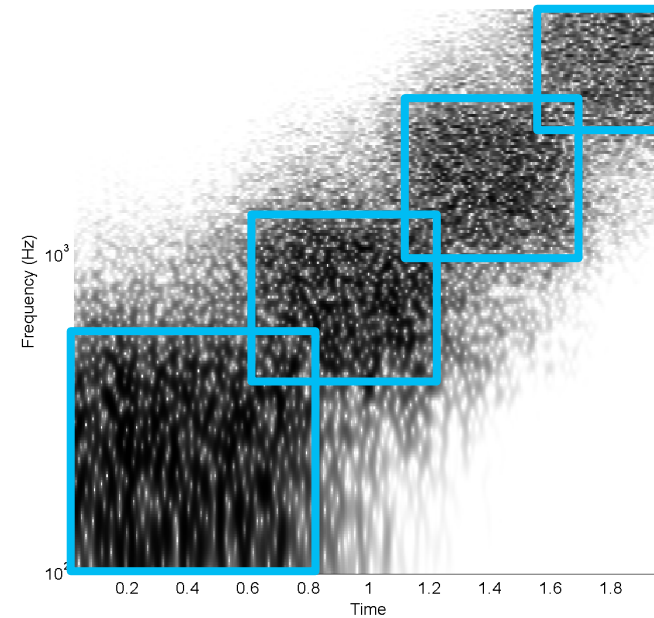
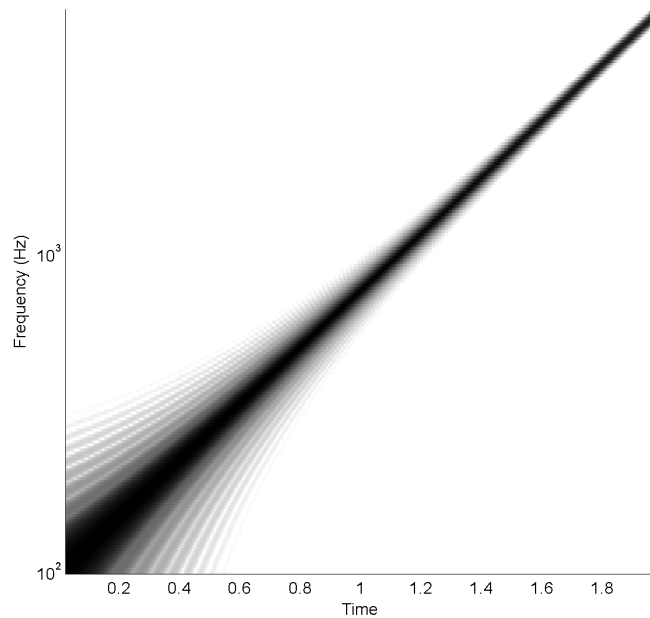


Auditory Speech Scene Analysis



Résolution spectrale de l'implant cochléaire

1/2



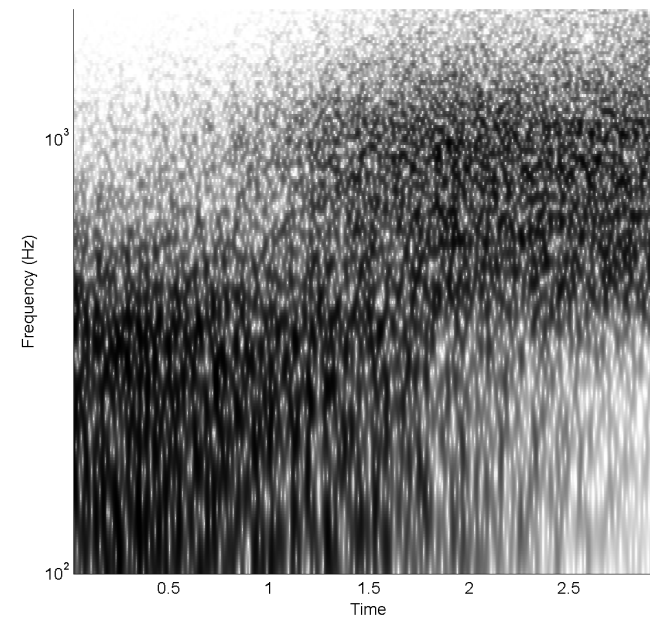
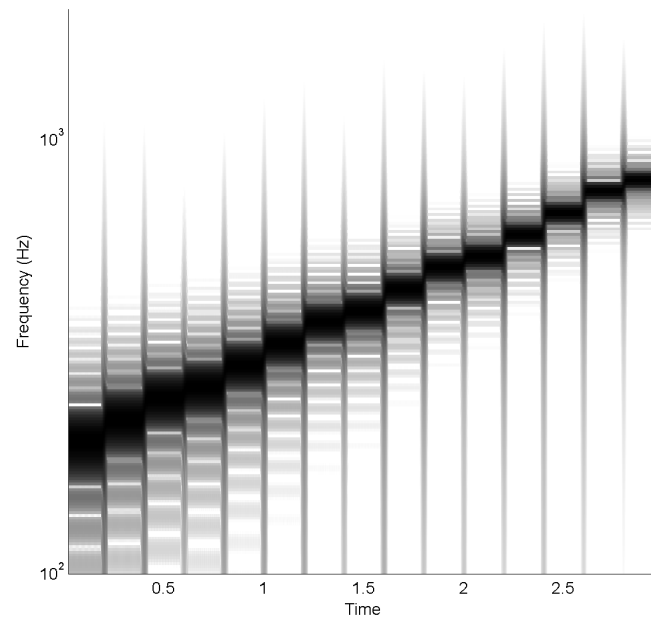
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Résolution spectrale de l'implant cochléaire

2/2



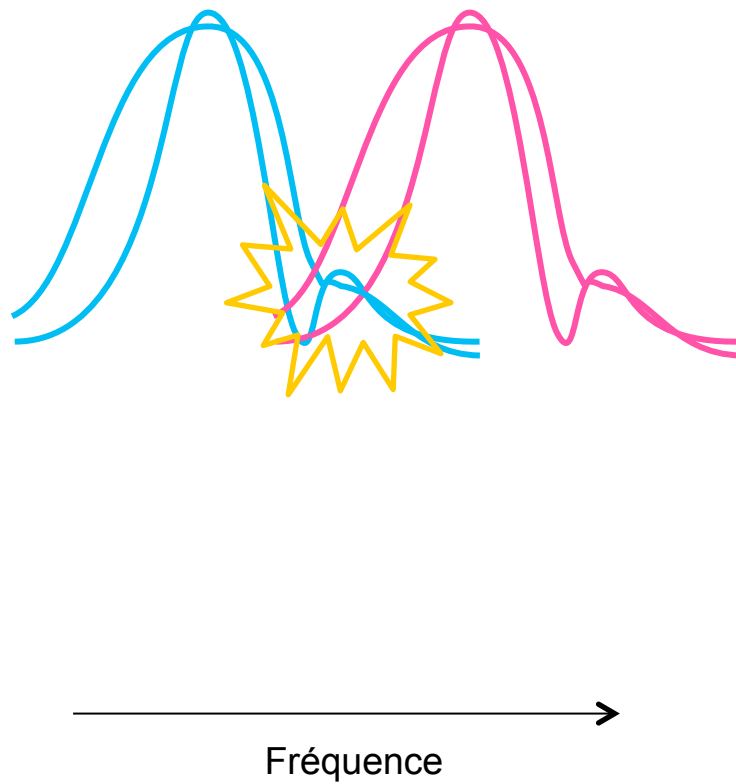
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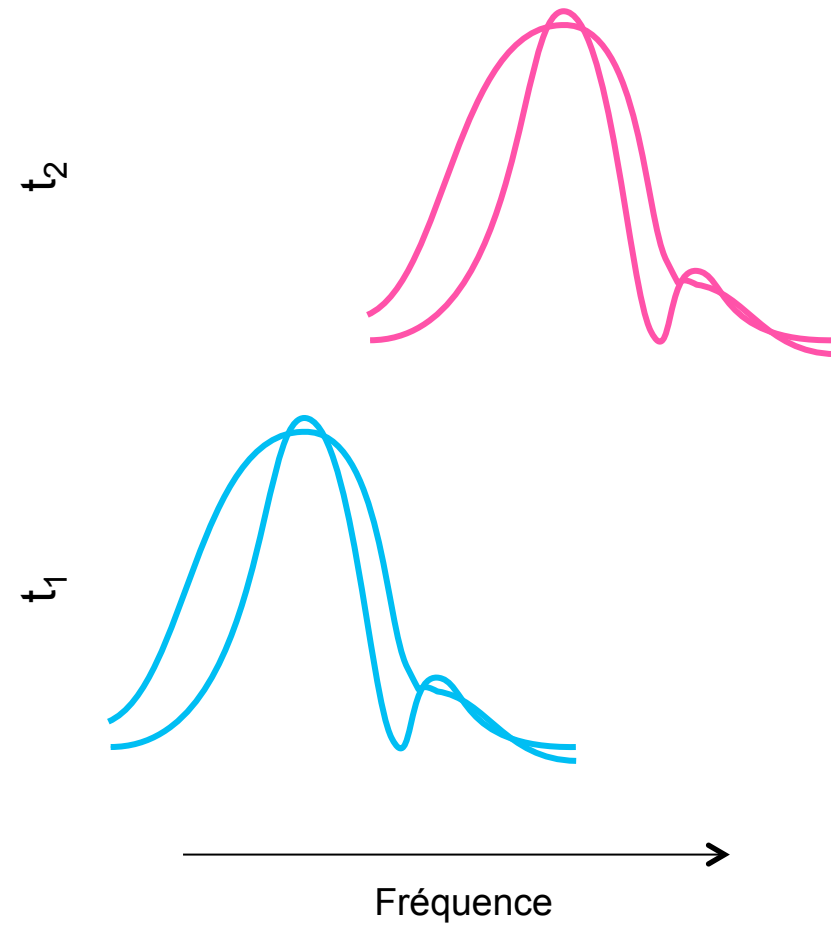
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Résolution spectrale et ségrégation

Ségrégation simultanée



Ségrégation séquentielle



Zebra speech

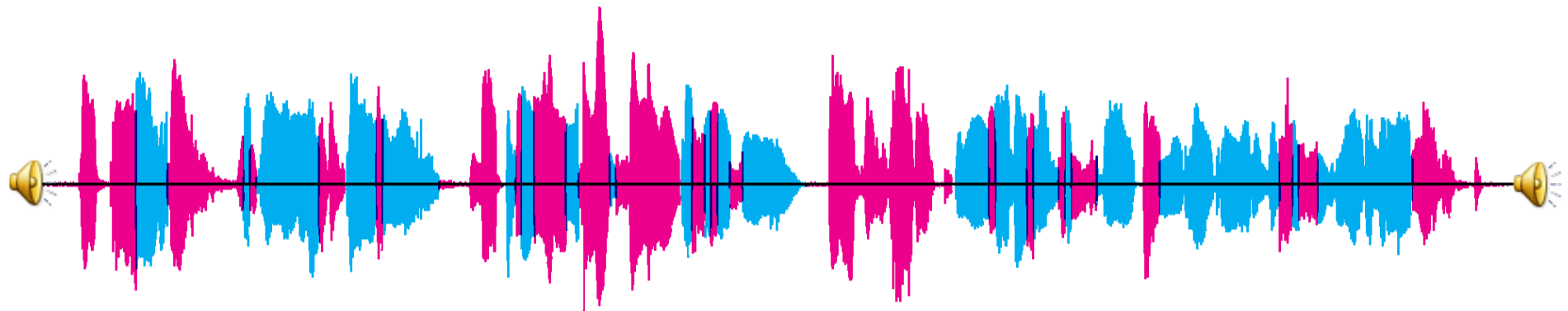


Gaudrain et Carlyon, 2013, JASA



Donkey speech → Zebra speech

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Brain Sciences Unit



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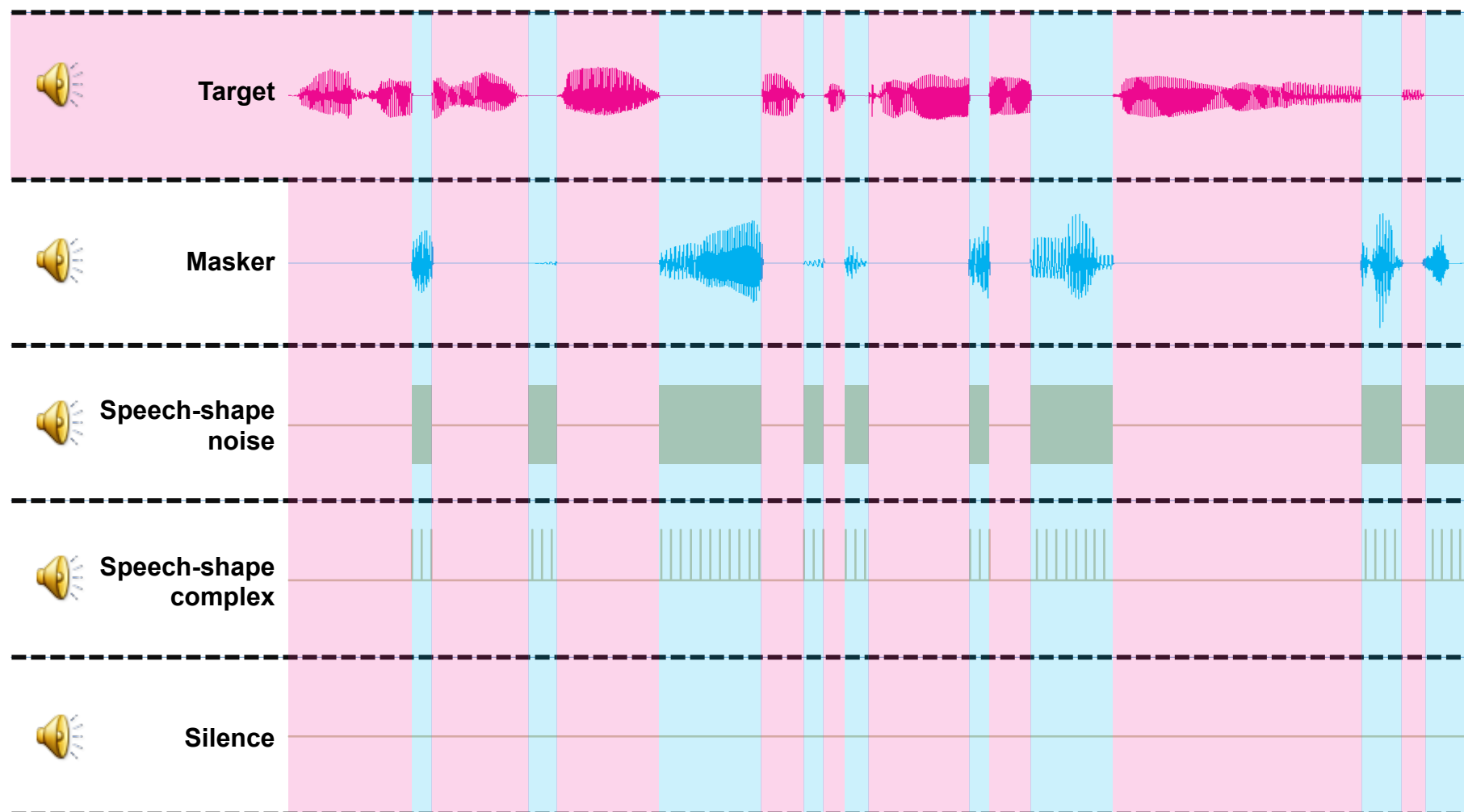


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Exp. 1 – Effet de ‘masquage’

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Gaudrain et Carlyon, 2013, JASA

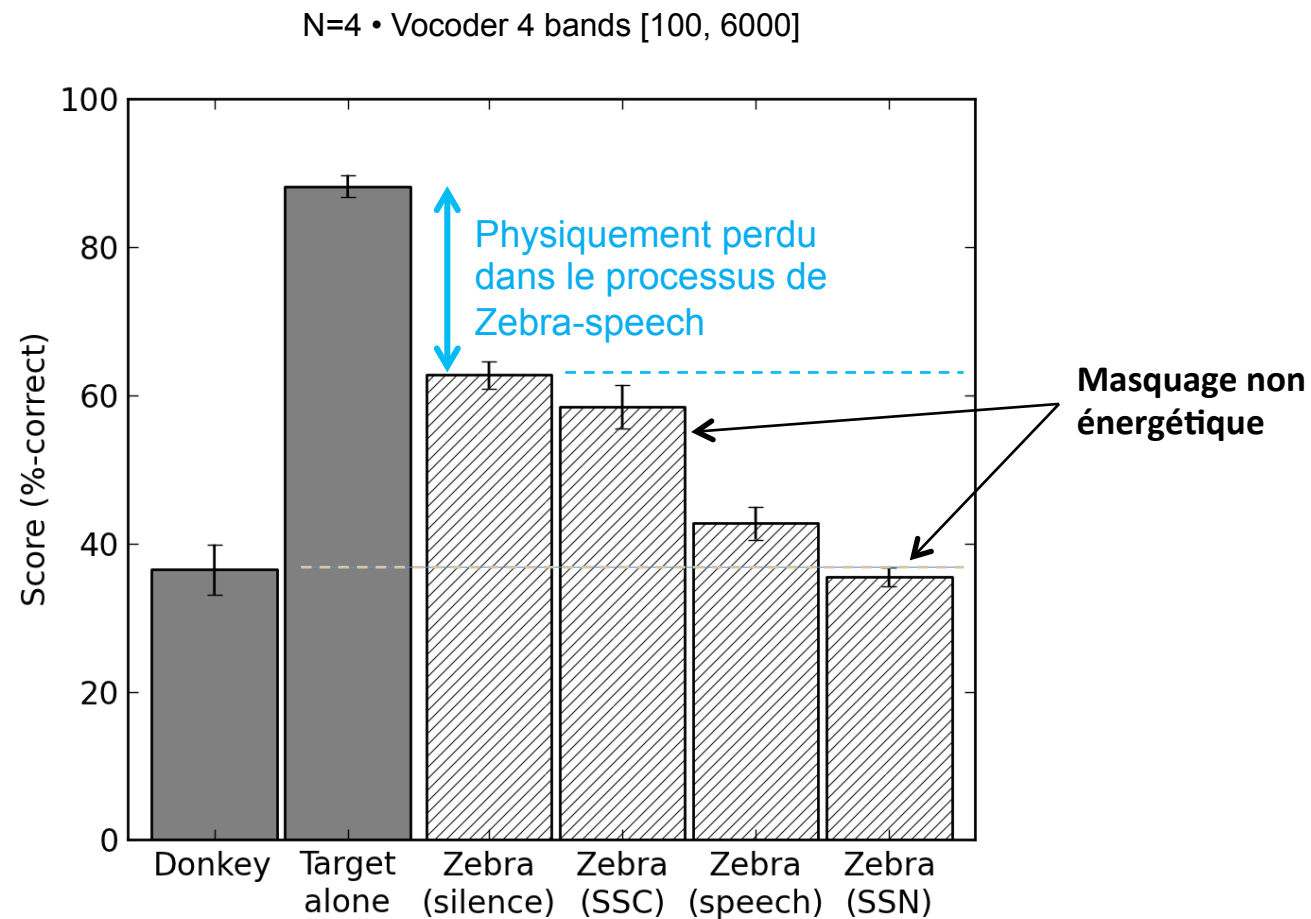


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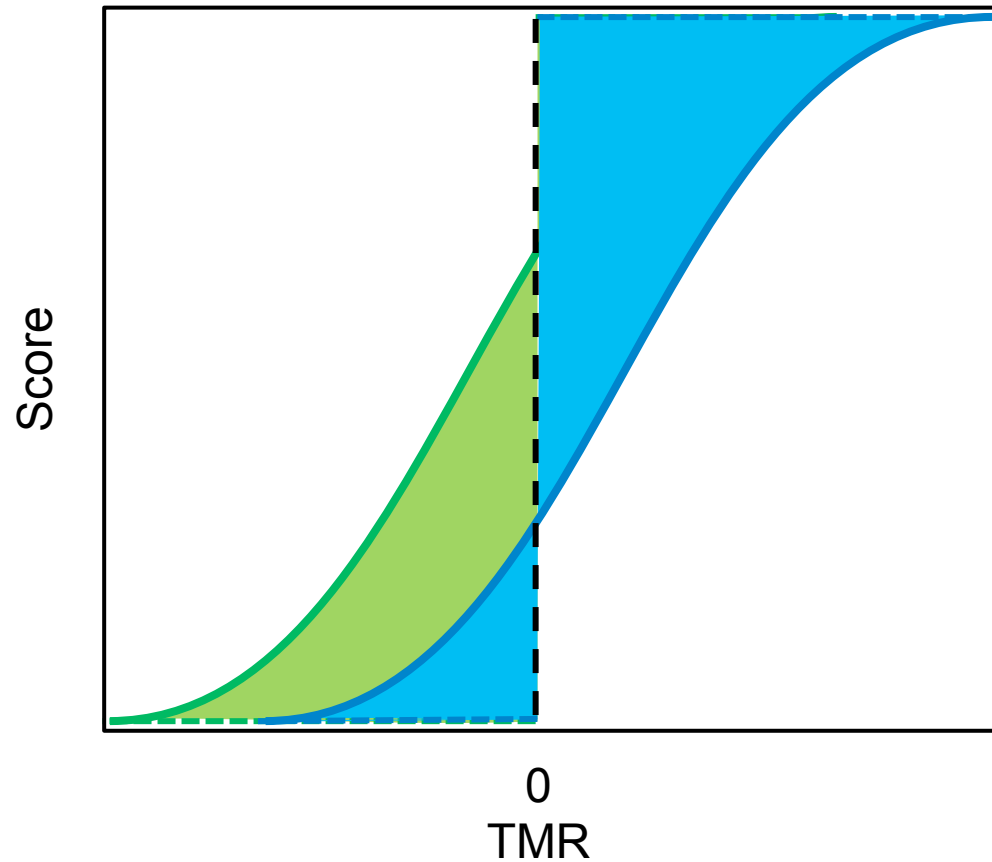
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Exp. 1 – Effets de ‘masquage’

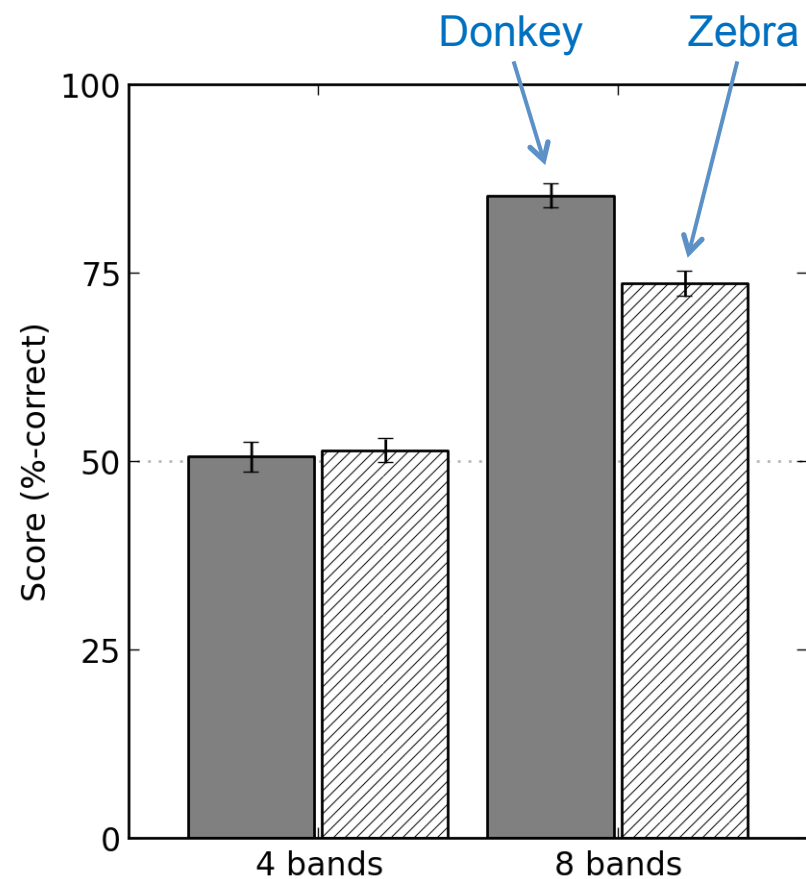


Gaudrain et Carlyon, 2013, JASA

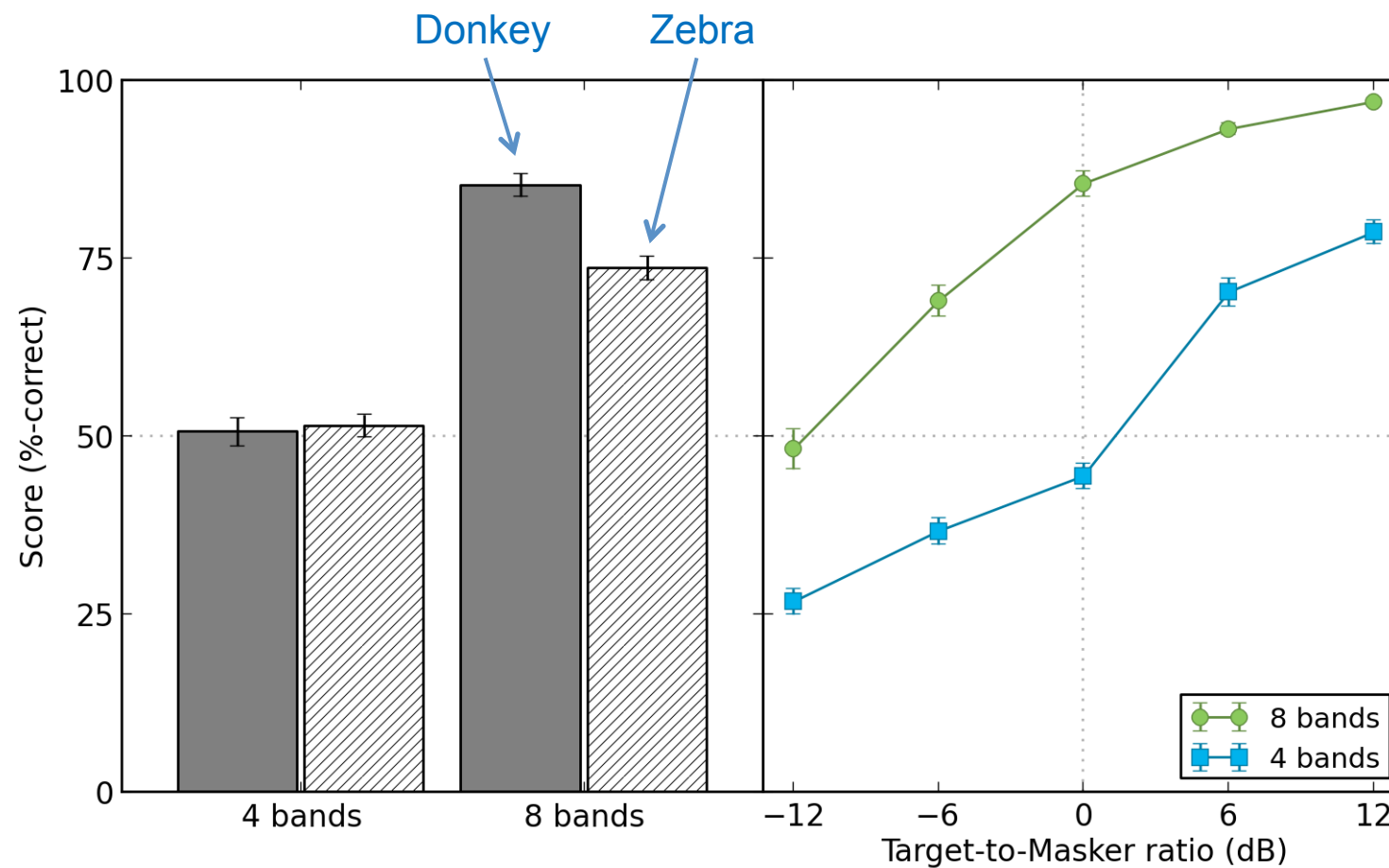
Exp. 2 – Effet de la résolution spectrale



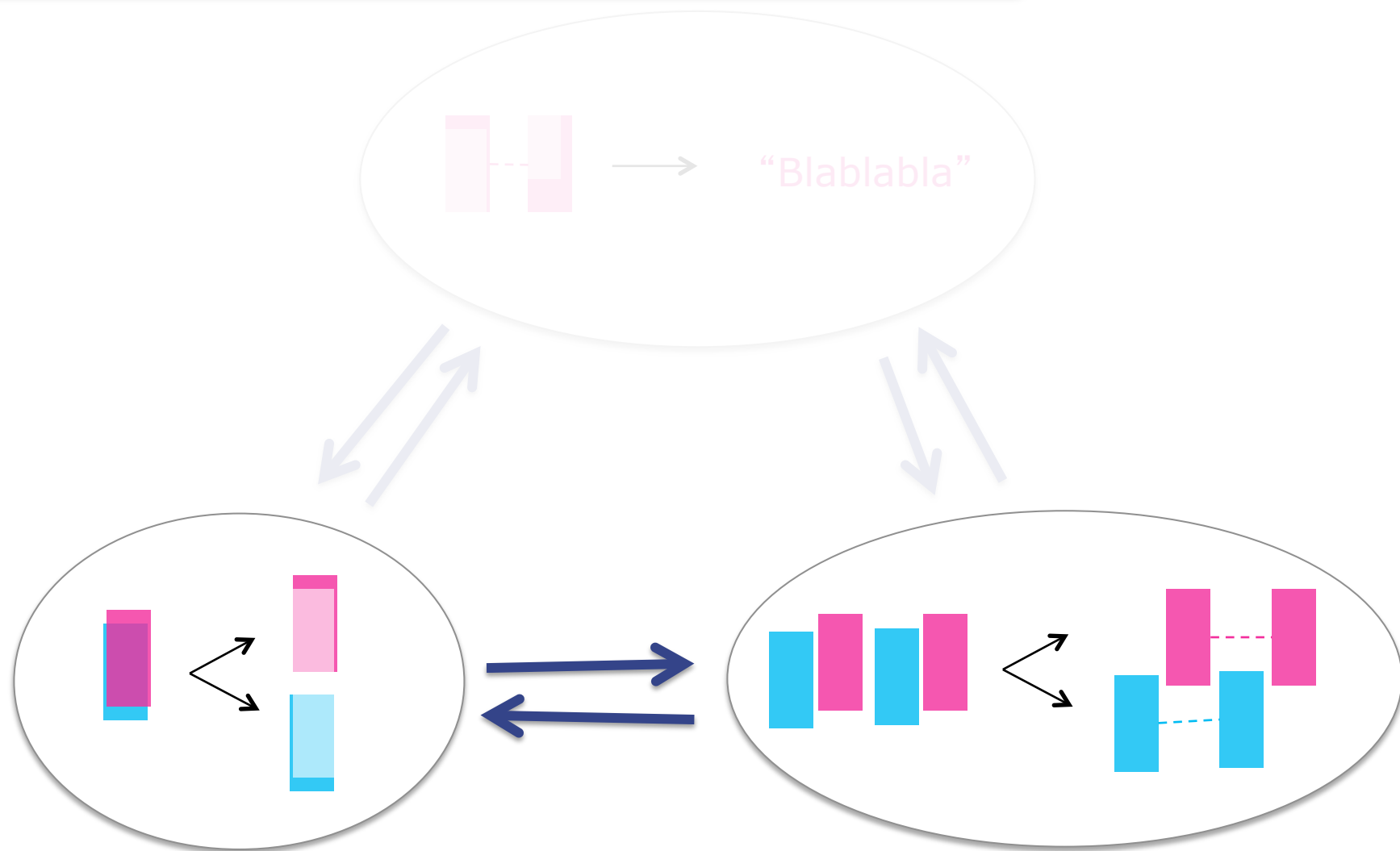
Exp. 2 – Effet de la résolution spectrale



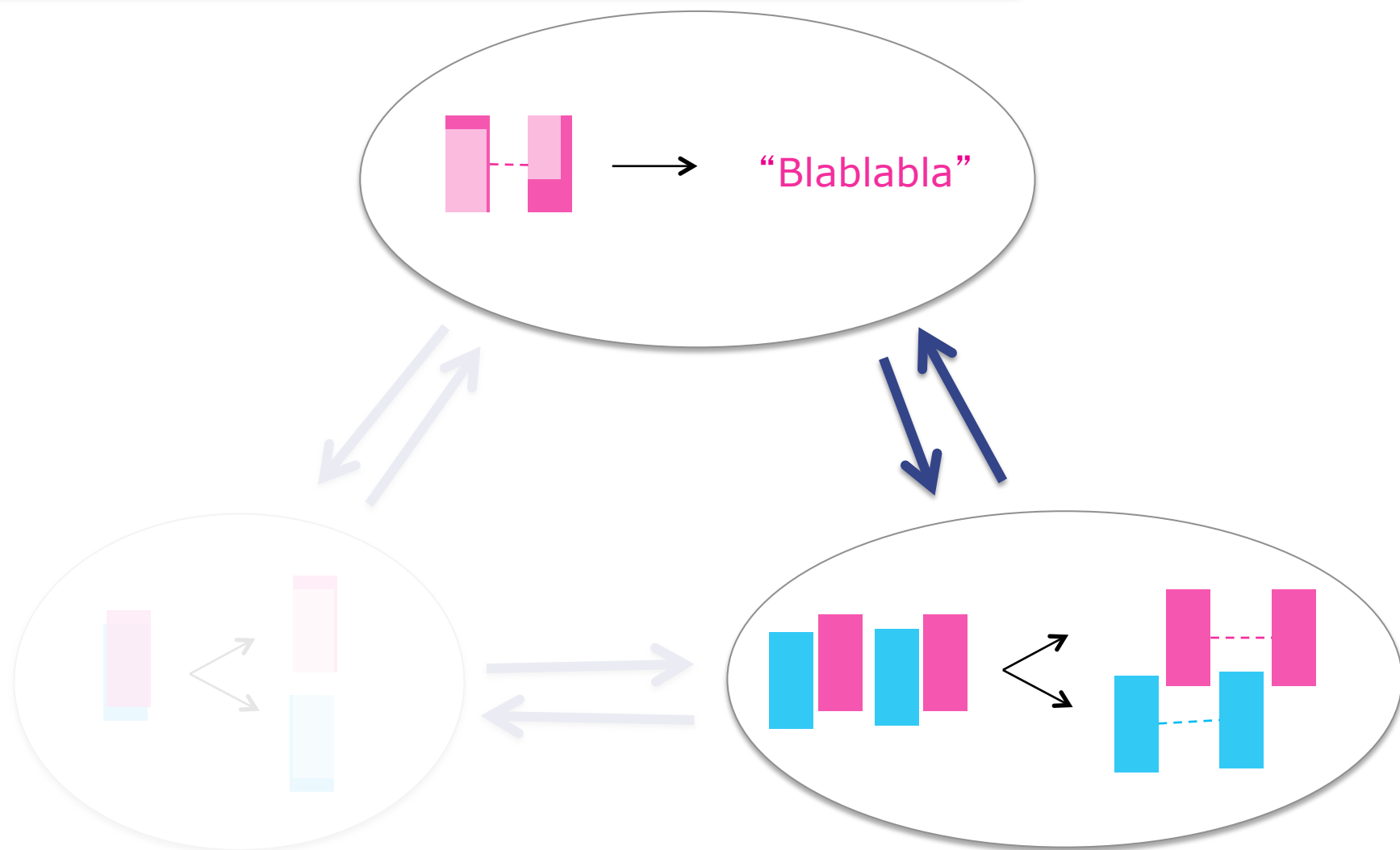
Exp. 2 – Effet de la résolution spectrale



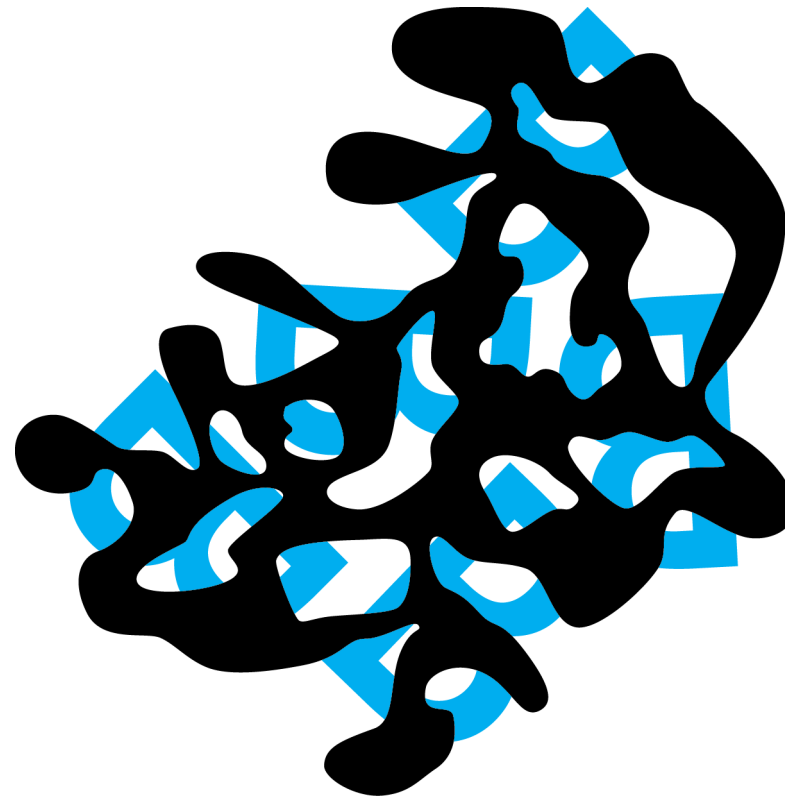
Auditory Speech Scene Analysis



Auditory Speech Scene Analysis



Restauration phonémique



D'après Bregman, 1990

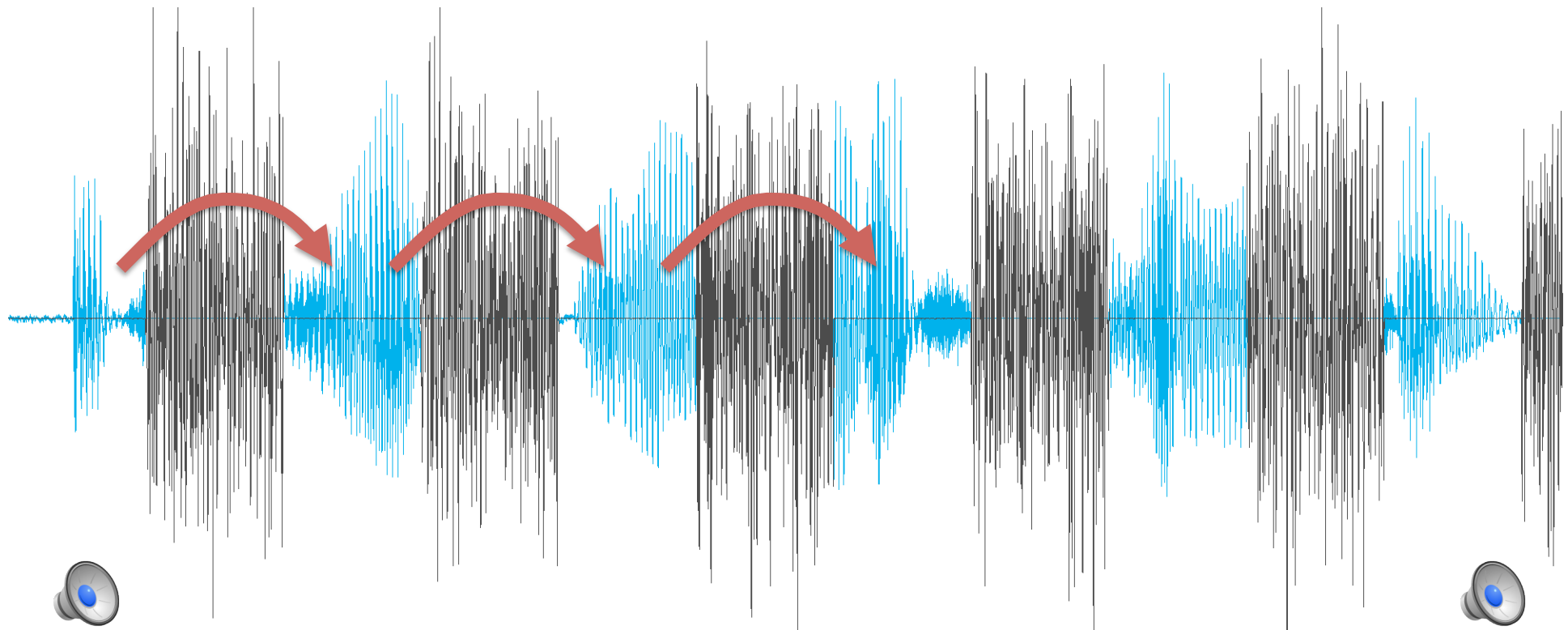


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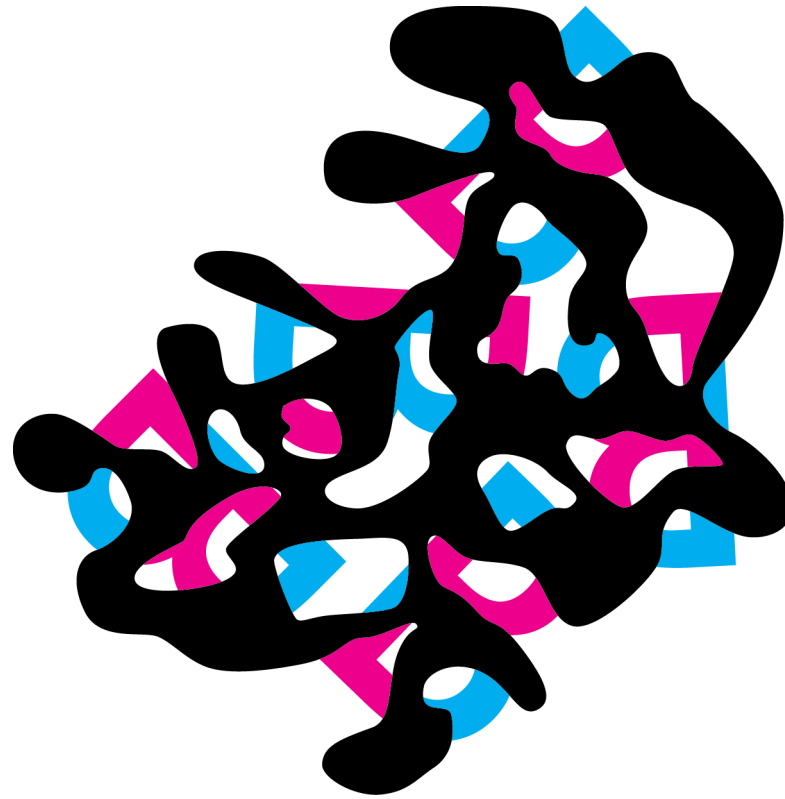


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Restauration phonémique



Restauration sans continuité ?

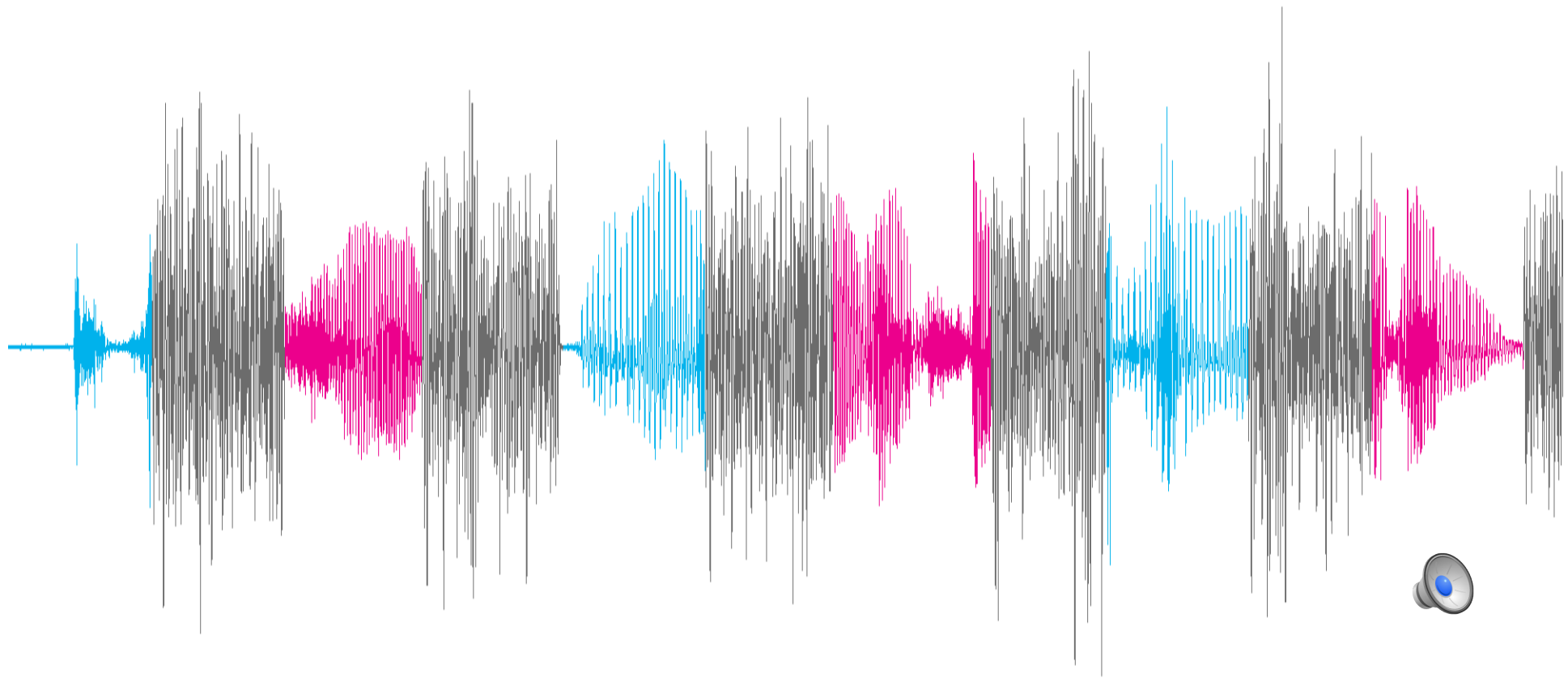


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Restauration sans continuité



Clarke, Gaudrain et Başkent, en préparation

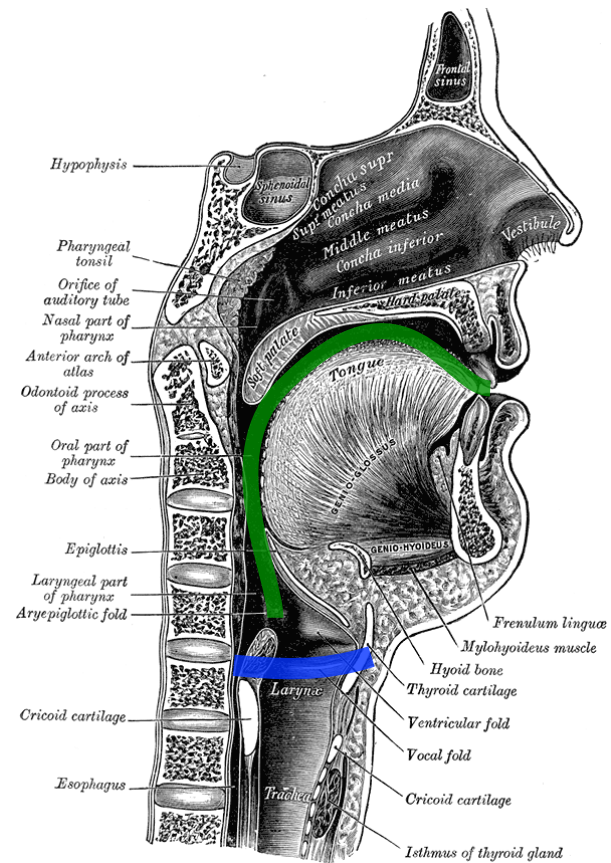


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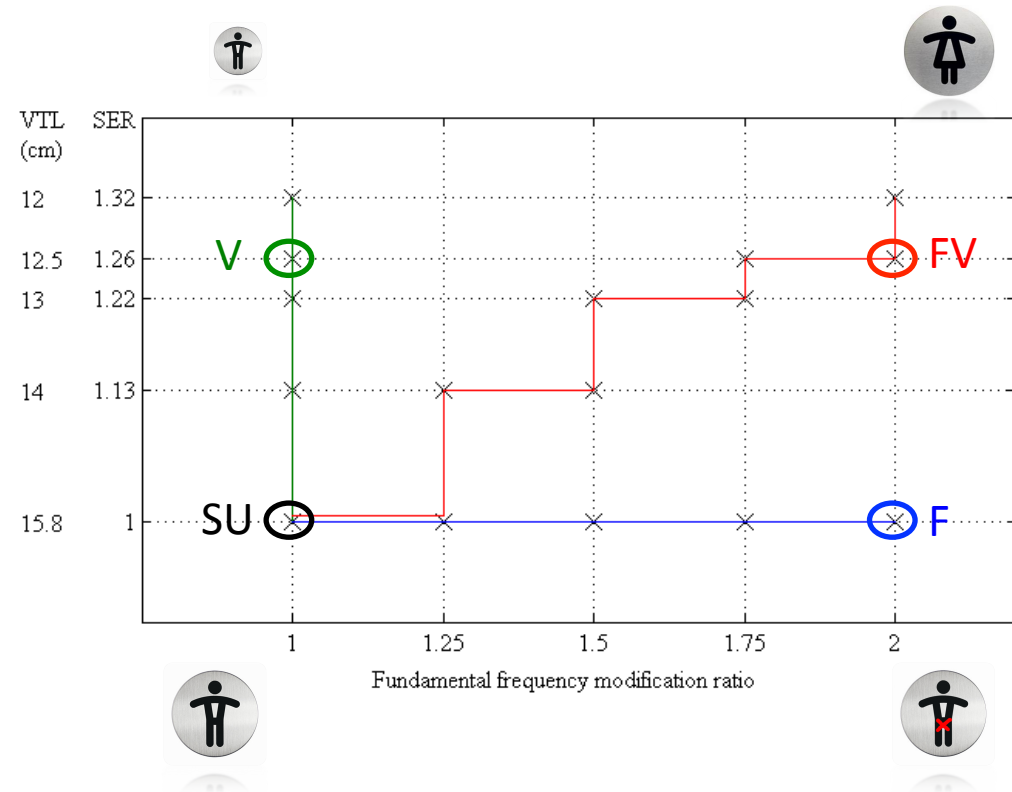


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Caractéristiques vocales



Chiba et Kajiyama (1941), Fant (1960)



Clarke, Gaudrain et Başkent, en préparation

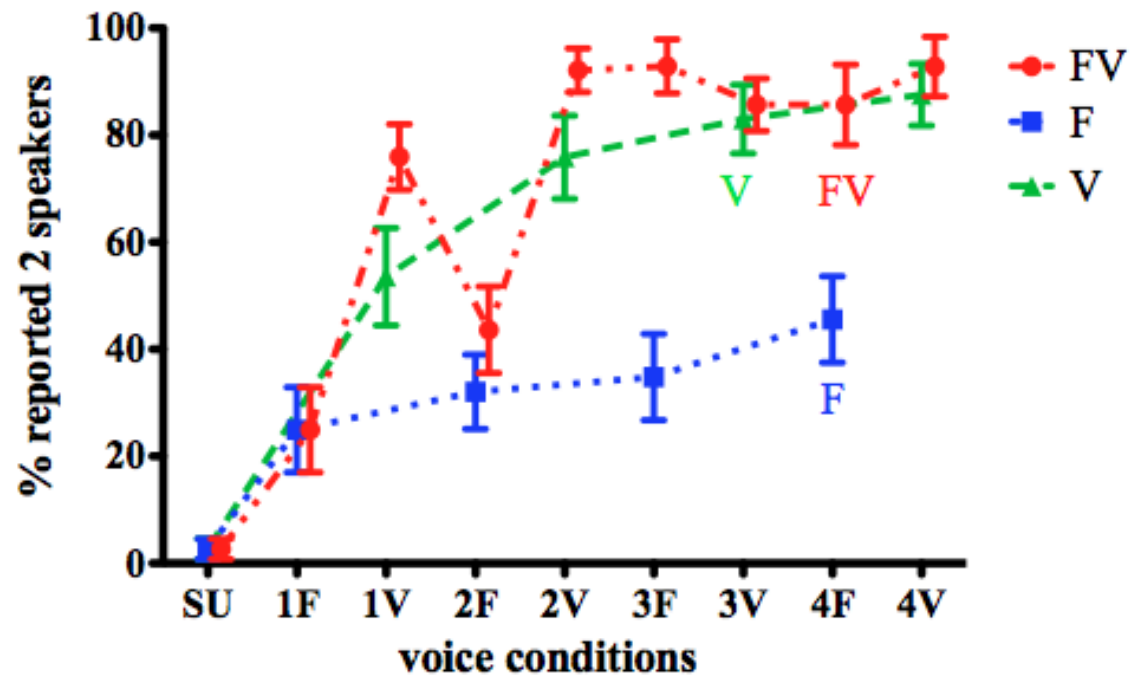


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Caractéristiques vocales



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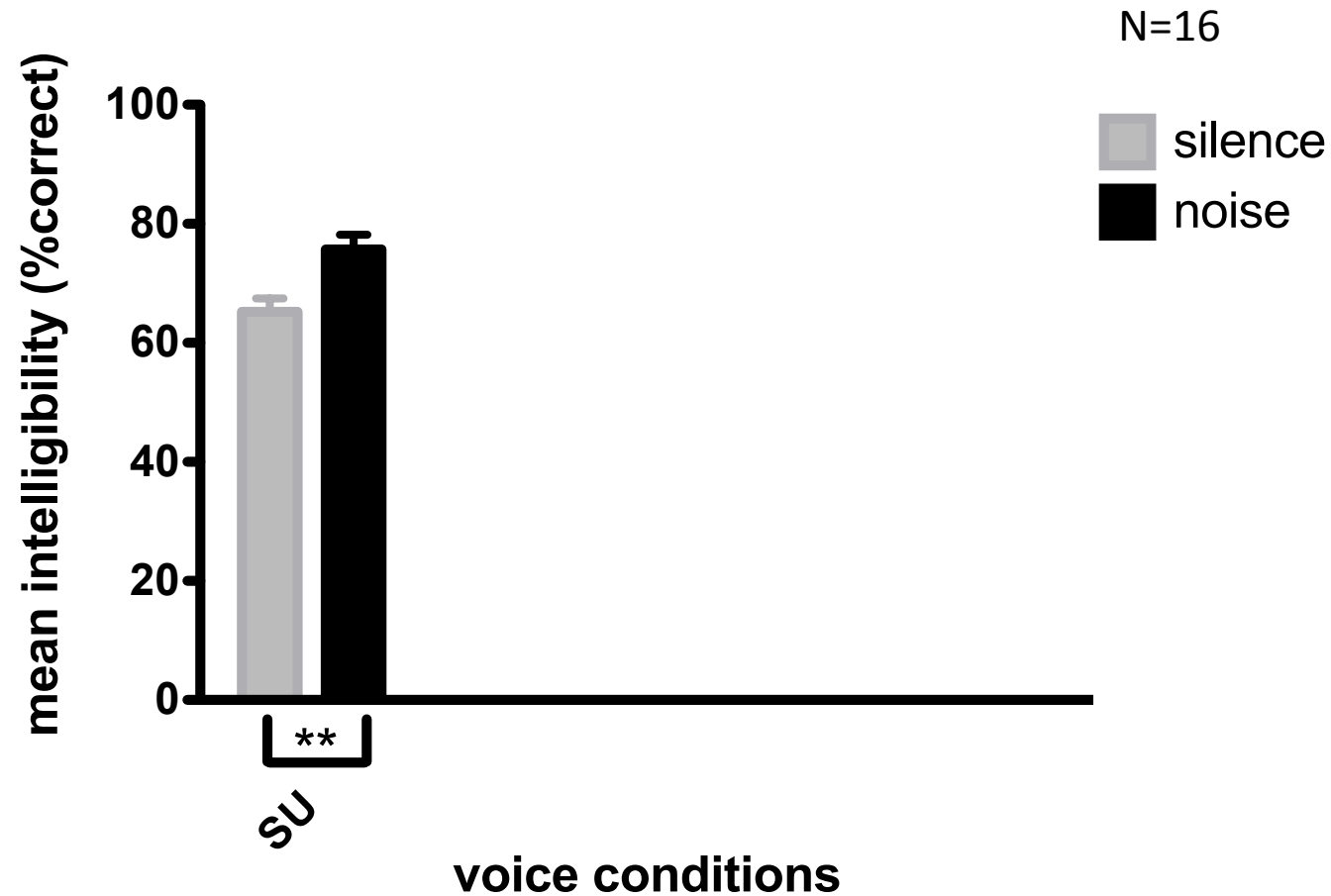


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Restauration sans continuité



Clarke, Gaudrain et Başkent, en préparation

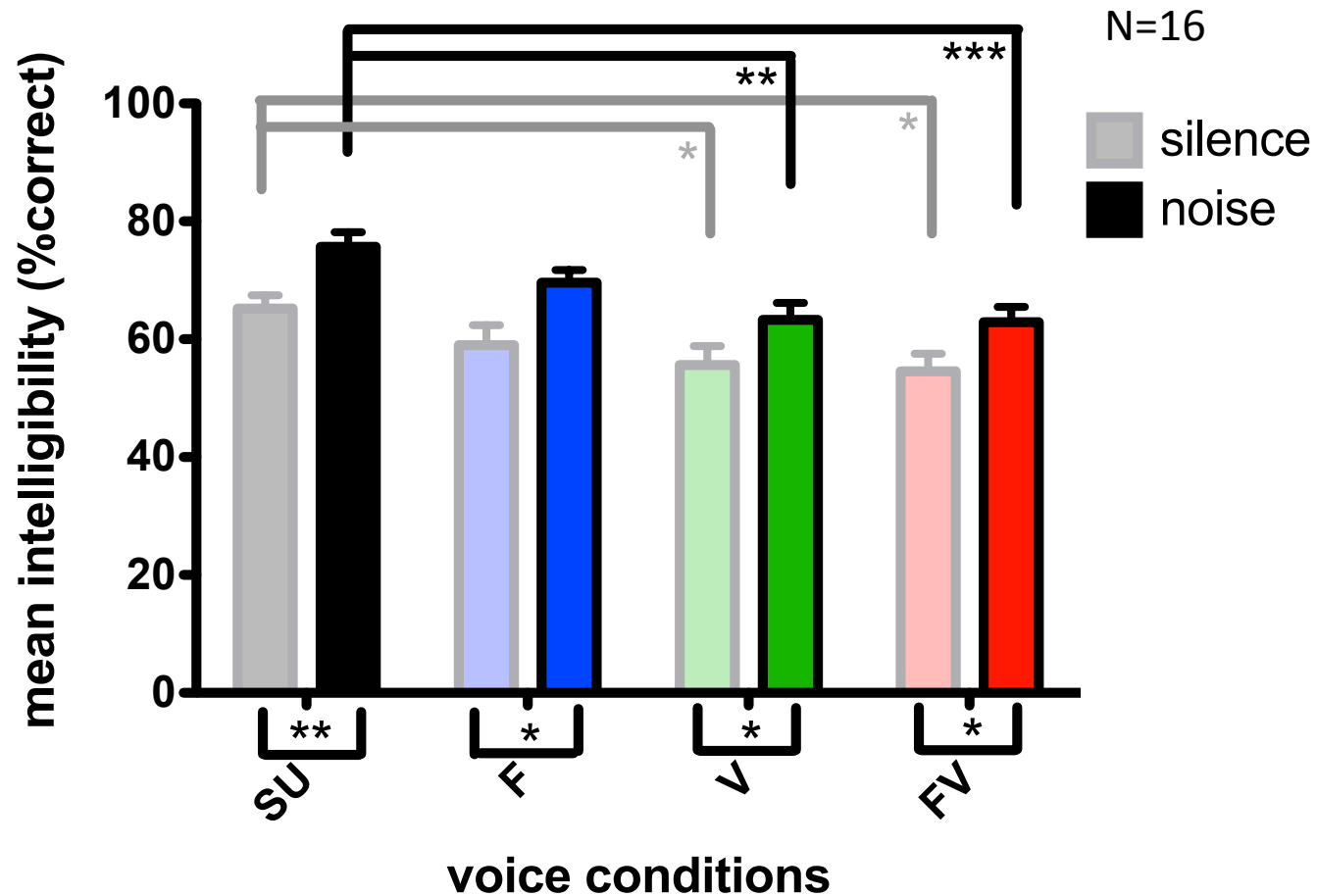


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Restauration sans continuité



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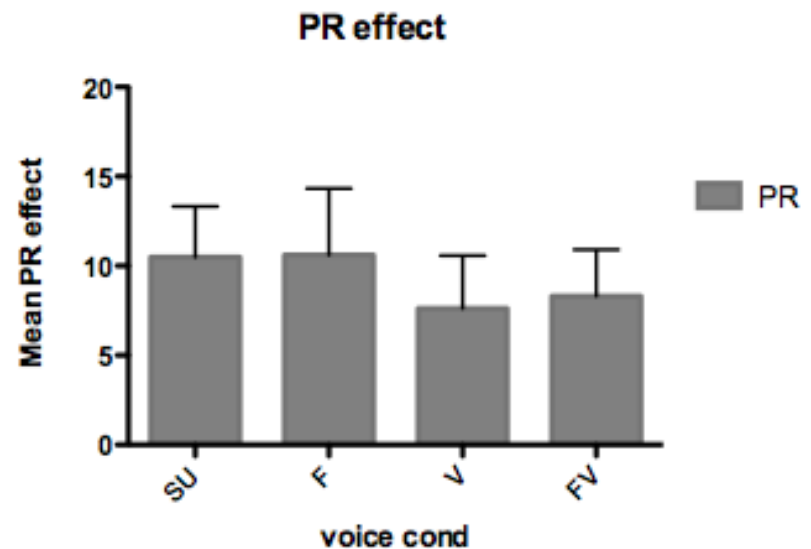
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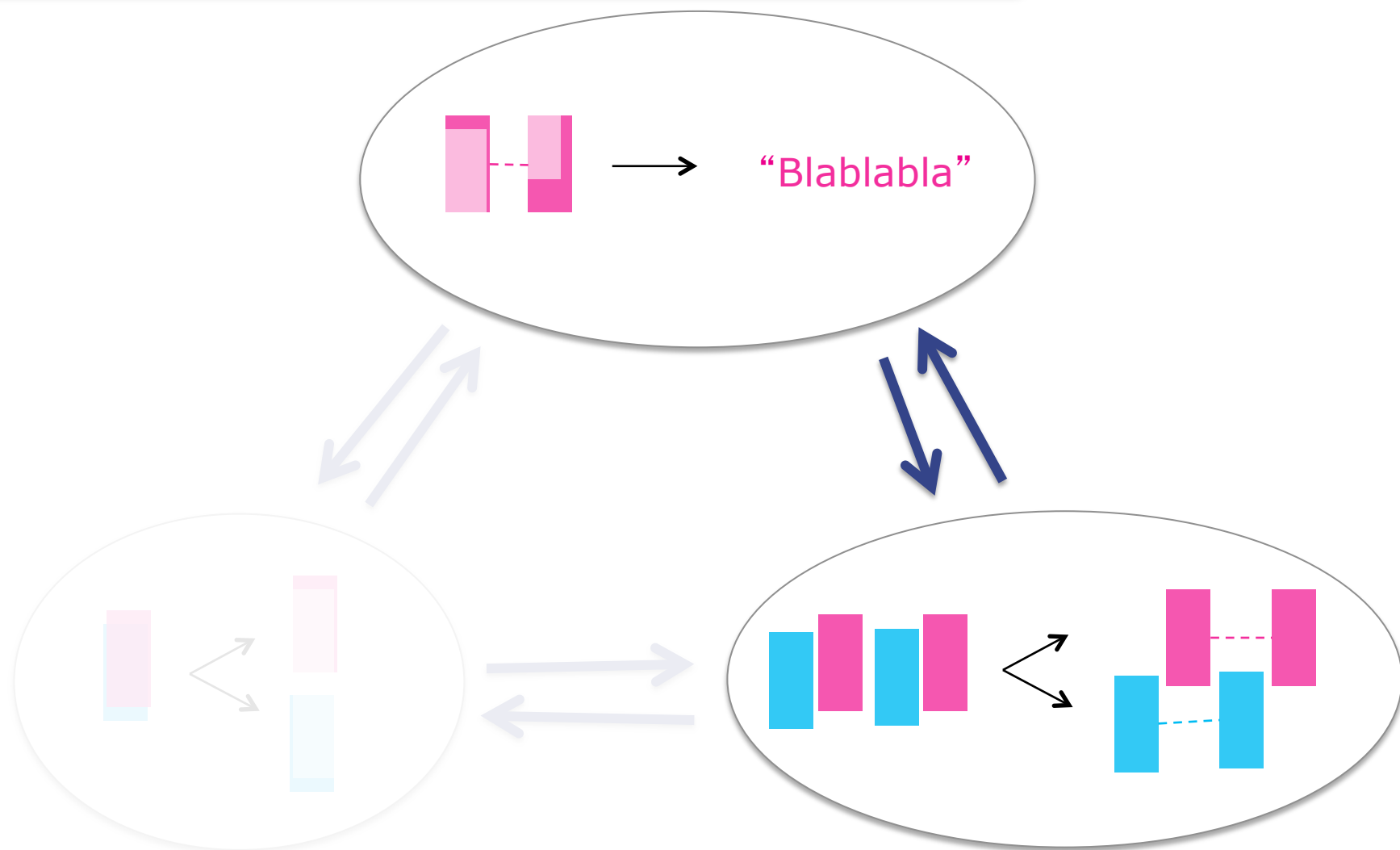
Restauration sans continuité

- “ Intelligibilité décroît lorsque la voix change
- “ Mais l'effet de restauration reste le même
- “ Continuité non indispensable à la restauration

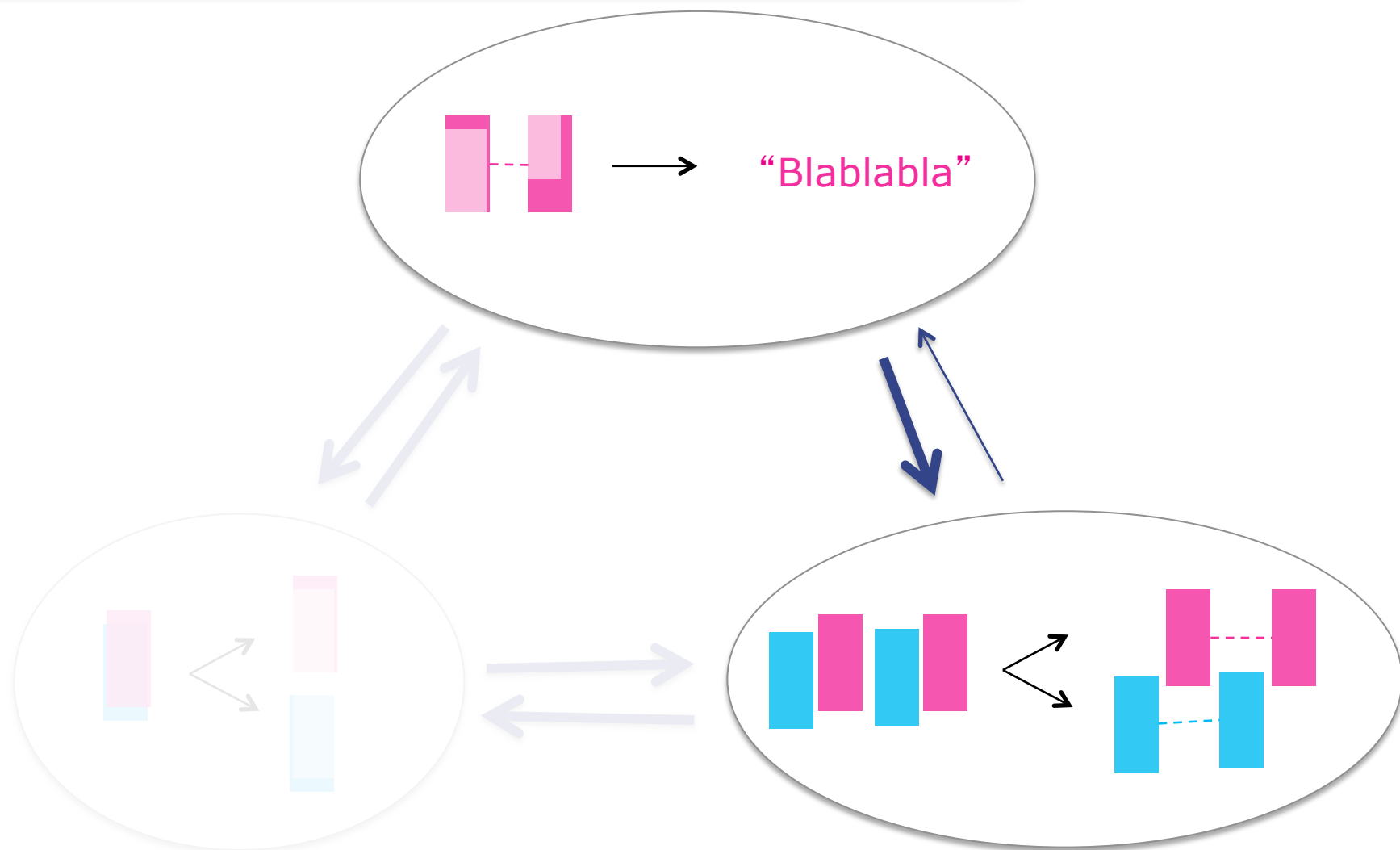


Clarke, Gaudrain et Başkent, en préparation

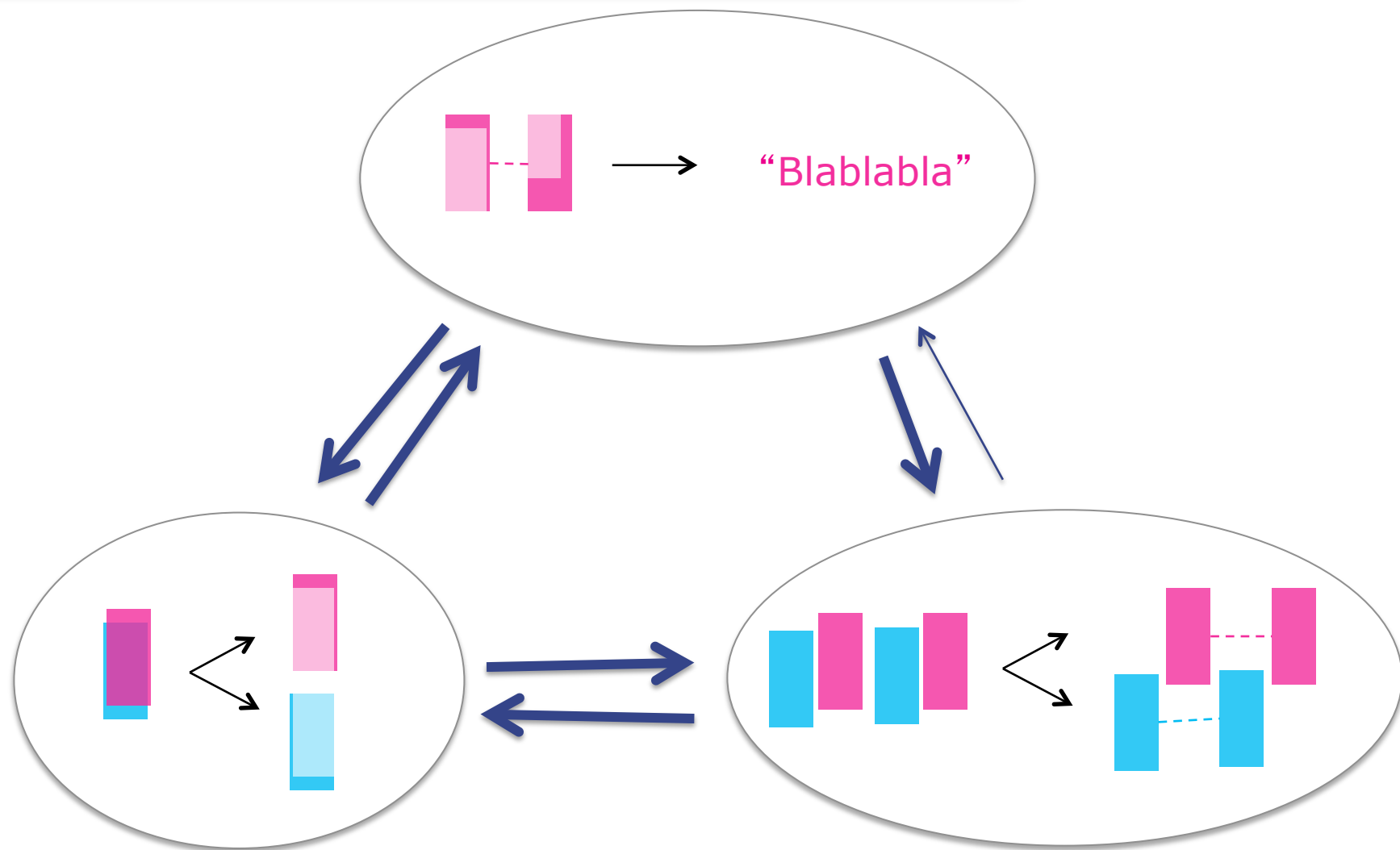
Auditory Speech Scene Analysis



Auditory Speech Scene Analysis



Auditory Speech Scene Analysis



Merci !

Bob Carlyon
John Deeks



Deniz Başkent
Jeanne Clarke

