

Second Bassoon: Specialist, Support, Teamwork

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It used to be that orchestras, when they appointed a new second bassoon, would not take the best player, but a lesser one on instruction from the first bassoonist: the prima donna. The first bassoonist would then blame the second for everything that went wrong. It was also not uncommon that the first bassoonist, when he made a mistake, to shake an accusatory finger at his colleague in clear view of the conductor.

Nowadays it is clear that the second bassoon is not someone who is not good enough to play first, but a specialist in his own right. **Jos de Lange** and **Ronald Karten**, respectively second and first bassoonist from the Royal Concertgebouw Orchestra explain.)

BASS VOICE

Jos de Lange: *What makes the second bassoon more interesting over the other woodwinds is that the bassoon is the bass. In the orchestra there are usually four voices: soprano, alto, tenor and bass. All the high winds are either soprano or alto, almost never tenor. The first bassoon is often the tenor or the alto, and the second is the bass. The bassoons are the tenor and bass of the woodwinds. The second bassoon is the only bass and performs an important and rewarding function.*

One of the tasks of the second bassoon is to control the pitch, in other words to decide how high a chord is to be played. The other woodwinds are reliant on the pitch of the second bassoonist. This means, for example, that in important pianissimo final chords the second bassoon does not play pp but mp or mf. If the second bassoon plays pp - because that is what is in the part - the other winds become insecure. A little more second bassoon gives the other winds assurance and stability, and leads to better intonation. Furthermore, if a chord is in tune but not totally consonant, the second bassoon has to take the responsibility to not be the first to stop playing, but the last. Because this will lead to a better effect in the final reverberations.

CHORDS

Jos: *If you play the bassline you have to know what function you have in the chord. If you have the tonic it is self-explanatory. But if the bassnote is the major third in a chord then you have to be aware of that, because you have to play it distinctly flatter; at 438.5 Hz if the normal pitch is 442Hz. It is one of the basic tasks of the second bassoon to know what function the bassnotes have. You know it and hear it.*

(Jos used to meticulously analyze his parts to work out what his function was.)

Jos: *Often it is the tonic, sometimes the fifth or the third, and sometimes even the seventh. You have to know, otherwise you will not know what to do. Take, for example, a bassnote E in a C major chord; the E has a harmonic spectrum where B, as the dominant, is quite present. This B disturbs the C major chord. So if you play the third in a chord you have to darken the sound so that the overtones are not as present. A very loud E would not sound good. In many Tchaikovsky symphonies there are B major chords with lots of D sharps; these have to be played dark and low. The second bassoon needs to have an antenna for the function in the chord.*

Playing with a dark sound means playing with alternate fingerings and not playing too loud. The bassoon can only play to forte and not louder; playing louder only increases the presence of the overtones—and not more volume - thus with a more strident sound. You get a darker sound if you lip a note down. Or with covered fingerings. For example, to play a low E with a dark sound you can add the low B flat key; with the low C sharp key the E becomes brighter which can be desired but not if the E is the third in the chord. This becomes second nature. It is a sport to do it really well. You have to know what is going on in the rest of the orchestra; it could, for example,



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Brahms 4th Symphony, 2nd movement

In a major triad the major third has to be considerably lower than normal; if you use a tuning machine, the major third should be 14 cents lower than the middle (one hundred cents in a semitone). In other words, if A=442 Hz, a pure major third should be played A=438.5 Hz. It is thus important to know or to hear if a note is a major third!

With the fifths it is not so extreme; a pure fifth should be played 2 cents higher than the tuning machine; or if A=442, a pure perfect fifth would be played as A=442.5; a whisker higher than normal. A minor third can be played simply "in the middle".

bar 25, E major, the E is thus normal and the G sharp low
 bar 26, 1st and 2nd quavers: F sharp minor, so a normal A
 bar 26, 3rd quaver: E major, the G sharp again low
 bar 26, 4th quaver: F sharp minor (with pedalpoint E in the horns), the F sharp is normal,
 bar 26, 6th quaver: E major, G sharp low and E normal
 bar 27, 1st and 2nd quaver: F sharp major, so A sharp low
 bar 27, 3rd quaver: E major, B normal
 bar 27, 4th quaver: F sharp major, C sharp normal
 bar 27, 6th quaver: E major, B normal and G sharp low
 bar 28, 1st quaver: D sharp major, D sharp normal (purists will play the D sharp low because you are in E major; the F double sharp (major third of D sharp major) would then be doubly low: A = 435!)
 bar 28, 2nd quaver: G sharp minor, the B normal

be a piano concerto where the piano has the same third; then you would have to follow the intonation of the piano. A sharp third in the bass is unsettling, everyone tunes to that note. If it is not in tune it will ruin the whole chord. The bass has to lay the foundation that the higher thirds can build on.

During the 2008 "Day of the Bassoon" we worked on Ensemble playing. I did some intonation exercises with a group of bassoonists. One player would play a loud, low bassnote and the other player would play the third 2 octaves higher; this third is one of the harmonics of the bassnote. The participants were surprised by the intonation

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Dvořák *Symphony 7*, second movement, bar 108: not too soft tonic (F), to give the other winds a clear bass; this makes the intonation for the higher winds easier.

when the third was perfectly placed. Musicians are now so mechanically trained, every note has to be perfect in tune; but you have to remain flexible. For example, in Dvořák 9 is a B major section with flute solo. The second bassoon plays the major third (D sharp). This D sharp is played low until the D sharp appears in the flute melody as the leading note to E. When the flute plays the D sharp, the second bassoonist should play a little sharper to be the same as the flute. This is a fun game. If bassoonists do not do this it does not mean that it is out of tune, but if a major third is perfectly in tune, people will say, "That sounds very good".

ALTERNATIVE FINGERINGS

Jos knows many alternative fingerings to help with intonation, and has written them down for reference.

Jos: *The first bassoon is nearly always audible and has to especially play with a beautiful sound. The second has to above all be in tune; that is the profession of the second bassoon. In a chord it is more important that the second bassoon plays in tune than with a beautiful sound; here, the tuning is more important than the quality of sound.*

Here is where alternative fingerings get used. In the boxed text on this page are a small number of these. There are also many sites on the internet (for example the IDRS website) where you can find alternative fingerings for soft notes; also a resource for Jos.

Ronald Karten: *Playing on period instruments is an enriching experience because those instruments are*

F SHARP

Jos knows about five different fingerings for the middle F sharp. The standard one with the thumb can be a bit sharp. With the little finger F sharp it is a little flatter because of the different hole. If it has to be dark: the 2 F sharp keys with the pancake key. If the F sharp has to be dark but with a full sound: the above fingering but with also with the low C sharp key. And if the F sharp has to be played loud and afterwards a long diminuendo then play the double F sharp fingering with low C sharp and slowly close the C sharp key. With this fingering you can play to *al niente*.



HELPFINGERINGS

- F sharp below middle C: Add the low D plus E flat keys. Strong effect
- G below middle C: Half close E plate or, for something a bit more extreme, close it completely
- A flat below middle C: Try very carefully closing the F key a tiny amount
- A below middle C: Add the F sharp key
- B flat below middle C: close or half close the E plate, for a much greater effect, finger a bottom B flat but move the third finger of the right hand off the G key and on the front B flat key. This last fingering is extremely quiet but is rather inflexible in pitch so, if it's a bit sharp or flat, you have a problem
- B natural below middle C: very carefully shade the A finger hole
- B natural below middle C: Normal fingering plus E plate and low B flat and B natural keys. Same problems as with the similar B flat fingering
- Middle C: Very carefully shade the B and/or A finger holes
- Middle C: Crook key lock on and then add all the left thumb keys. Or, very carefully, lower the first two fingers of the right hand so as to partially restrict the air flow from them
- Middle C sharp: rather than use the long (or full) C sharp (which includes the right hand A hole, G key, and F key) try the short fingering (i.e. nothing in the right hand but add the low D key as well as the C sharp key). Alternatively, try the C-D flat trill key (right index finger on most instruments) but the pitch of this is usually a bit suspect.
- Tenor D: Normal fingering and add right thumb B flat and A finger hole. Very quiet and very useful (Figaro!)
- E flat in the bass clef: Left hand fork fingering plus low E flat little finger key; right hand second finger A hole plus thumb B flat key
- E natural: Normal fingering plus right hand G key and E plate
- F natural: Normal fingering plus right hand G key and E plate as with the E

Source: Andres Pablo Skarbun, *Second Bassoon in a Symphonic Context*

more reliant on different fingerings for controlling the intonation. And you can discover other possibilities that can be used on the modern instrument. If you have a good Heckel, then in principle, the intonation is pretty good. But even Heckels have limitations when it comes to playing softly. So also on the modern bassoon, you will need to search for alternative fingerings. There are, for example, notes that do not project but blend well in chords. You can play as on the baroque bassoon the b flat with a fork fingering, a nice dark sound for playing *al niente*. For the C sharp you can finger a D and close the B hole with one of the pinky keys for stability.

Jos: The baroque bassoon is so flexible, it is possible to play *glissando* while on the modern bassoon the notes are quite separate- digital. A classical bassoon, even if it is tuned to 440, can play -with some effort- at 430. An extreme example: On the new *contraforte* (a new type of *contrabassoon*) it is impossible to play out of tune; it is made to be very stable. A *dulcian* is the exact opposite; the tuning is set in the beginning but you can do anything with it. That is not possible on a modern instrument. A modern instrument does not only have advantages, but also disadvantages- the rigidity and lack of flexibility.

ENTRANCES

Jos: The "Magic Flute Overture" has a section where the winds play a call three times (bars 97- 102). In practice, the first call is usually too late and the second and third good. With the first call, everyone waits until someone begins. I have noticed that if I play on the conductor's beat the orchestra follows.

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Mozart, Magic Flute: dare to play; do not wait for the others; give the other winds the confidence regarding the timing.

Jos: *If everyone waits, we are too late. It is easiest for the second bassoon to take the initiative, easier than when, for example, the flute would do it. A well timed, not too late entry from the second bassoon gives the whole group confidence. Not all conductors are clear when showing entries (if he is not worth his salt). But when the second bassoon begins, the rest of the group has feeling of security and will follow.*

MUTE

Jos: *With a mute you can even play the low B and B flat very softly; it removes the sharper overtones from the sound. Even in pianissimo the overtones are very present; if the conductor asks whether it can be softer, he is asking whether the sound can be more dull.*

[Jos always has a mute with him but uses it sporadically (less than one time in a year); he prefers to find the solution through alternative fingerings.]



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II.

Poco Adagio. M.M. ♩ = 56



Dvořák 7-beginning of movement 2: Dare to play; do not wait for the others; give the other winds the confidence regarding the timing.

Adagio



Brahms, Violin concerto: beginning 2nd movement for only 2 bassoons- 2nd bassoon has the tonic (F), 1st bassoon has the (major) third (A) which should be low. The 2nd bsn should not follow the first, but should 'set the tonality'; bars 3 –6: all A's low.

Jos: The problem with the mute is that the intonation and resistance change; playing with a mute requires more air. This can lead to sharpness which you do not want in the low register. The mute is always a stopgap option.

Ronald: As an example, Ligeti wrote in one of his pieces a passage for three muted bassoons. A long succession of soft notes which is followed by an open F where the mute is required. But for an open F, where all the toneholes are open, a mute will not have any effect. Even so, for the theatre, we made a pontifical gesture of inserting the mutes. The main function of the mute is to give a little more security in emergencies, for example, if a reed is not so good. But a softer reed has a better results.

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REEDS

Jos: *The second bassoon plays usually in the low register; this requires reeds which produce a rounder sound. If I have to play out, I have to work harder. The first bassoon plays on reeds more geared towards sound; it is in the softer passages where the effort has to be made. The second bassoon occasionally also plays as a first bassoon, for example, in Mahler 5- a high E flat. This must also sit in the second bassoon's bag of tricks.*

(Jos' reeds are softer than Ronald's. Because of this the reeds are lower and that means harder work for the tenor register. But comfortable in the low register.)

Jos: *To blast out a high C I need to give a lot of air. Strangely enough, I get a darker sound from the thinner reeds. If it is too thin, the reed will rattle and that is not good. If the sides are relatively thick, the reed will rattle, thus more noise. If you make the sides thinner the cane will become weaker and not rattle as much. This gives the feeling of a darker sound. The disadvantage is that you will lose projection especially in the high register. This is all a generalisation because the complete understanding of reeds will always be a mystery.*

BOCAL

Jos: *In theory, a first and second bassoon do not have to play on different types of bocals. But in practice the first plays more often on a Number 1 because the high register plays a little easier; you do not have to push so hard. The second bassoon plays more often on a number 2 because it works better for the low register, and with low soft playing will not be too sharp. The low register has to be low because on a bassoon there is the tendency with soft playing to get sharper. If you play too sharp, most people do not hear it as out of tune but as something uncomfortable in the chord. If something is too flat then it is immediately recognized as out of tune. Due to audiopsychology, playing a little sharp is not perceived as bad. But nevertheless a second bassoon should stick to playing 442.*

(Sometimes Ronald uses a bocal extension to lower the intonation. The difference is 2 or 3 Hertz.)

Ronald: *A longer bocal has the most effect on the notes that are made close to the bocal. So for an open F an extension will make a big difference, also for the overblown C, but for a low B flat there will not be any noticeable effect; look at the distance on the bassoon between the B and B flat, centimetres, a few extra millimetres are superfluous. But in some cases, if you have tuning notes in that register, an extension can help.*

(The last time Jos used a bocal extension was fifteen years ago, when he played a concert with an organ tuned to 435.)

Jos: *The extension had also another effect: it functions as a good mute: it is a soft piece of metal between the reed and bocal which dampens the vibrations from the reed. The effect can be compared to the dampening effect on a reed when the back is thinner. From this experience I have learned to attach the reed tightly onto the bocal. The reed has to have a big sturdy turks head, three times smeared with nail polish, heavy thread, and sitting securely on the bocal. Then you get a good connection between the reed and bocal, and the vibrations from the reed can be passed through without disturbance.*

Everything that can be said about embouchure and reed is dependant on how strong the embouchure is. The old German School had a stiff embouchure. The reeds need to fit with the embouchure. This setup can lead to playing a bit sharper and in Germany the pitch is often sharper. Then you would need another bocal.'

PSYCHOLOGY

Jos: *The psychological function of the second bassoon is to support the first bassoon and let him/her feel at ease, so no bungling around, and making sure I know the part. I do not want to disturb the first bassoon by making mistakes. That can sometimes occur and I find that not satisfactory. The first bassoon is allowed some scope because he has to play difficult parts. I have to support the first bassoon. I count everything with the first bassoon but when*



rests in his part, I begin to count from the moment the he stops playing.

*I learned from **Brian Pollard** that I have to listen for the first bassoon: Is the first bassoon sharper than the cello, is he together with the violins, how is the tuning with the piano? Because while you are playing it is difficult to hear everything. I am the ears of the first bassoon when I do not play. And I give feedback.*

Ronald: *You have to have a good relationship before you can say those sort of things and be able to accept criticism from each other. It is a very good feeling to sit next to someone who has made an art from second bassoon. There are other second bassoons who do not do more than play their part and further only glare frustratingly at their neighbour; for a first bassoon is that completely useless. You have to be supported by the second bassoon.*

While one is playing it can be difficult to hear if something is not together or not in tune; because of the pressure on the ears from inside the head you can perceive it differently. If the earplugs are in, you can actually hear your own intonation better; when you take them out, you hear a different intonation, but you do not know if that is the right intonation. Because from all the overtones intonation becomes relative. That is why it is good to have someone next to you who can correct the intonation when it is needed. There are too many second bassoons, professional and amateur, who do not do that enough. You are as a first player not necessarily a better player than the second. The first can maybe play a theme just a little better, more beautiful or with more fantasy so that he can win an audition. But the function of the second is absolutely not less worthy than the first. This is what Jos is explaining. With the feedback - the psychology of supporting - in tutti passages the second bassoon has to play out all stops; then the first bassoon can rest and save himself because he will later have to play beautiful solos. Sometimes the second plays a few notes from the first part.

The feedback should be given in a suitable way, because the first bassoon needs to feel comfortable in his position. A first wind player can lose confidence because he is always in the spotlight. If a conductor asks, for example, to play louder, I appreciate it if the second bassoon can analyse what the conductor exactly wants and give his interpretation. The second bassoon can judge a conductor's remark in a different context. For example: the bassoon is a blending instrument. If too many instruments are playing together, then the bassoon can blend too well and lose its color in the group sound. A second bassoon can be a good judge.

Jos: *For us, the acoustic in the big hall of the Concertgebouw is an important aspect. If a windplayer has something with the violins, and plays with them, you can guarantee in the hall that it will be late. A quarter, a tenth of a second. You have to play everything a little earlier then in the hall it will be together. That means playing actively, not quicker than the cellos, but everything a little before; you have to have the idea that you are leading the cello group. If you are just playing along, you will be late; anticipate, playing before you hear something. It is a typical problem in the Concertgebouw. It is a fantastic hall, maybe the best in the world, but the timing is incredibly difficult. A piano concerto is actually disastrous. Because the lid is open the sound goes round the whole hall before it comes back to us. If you play with the piano you will be half second too late. The second bassoon is there to identify this and then to anticipate.*

TITLE OF THIS ARTICLE

When choosing the title for this article, some of the alternatives were: "The Ears of the First Bassoon", "Two Hands on One Instrument", "Do You Need Help Fingering?" These three did not make the cut but they show the direction of the article. The second bassoon has its own special functions that are made clear here. The second bassoon gives the first bassoon support when needed. And Jos and Ronald show that the first and second bassoon need each other to make music.

Thus: **Specialist, Support, Teamwork** ◆