Abstract—We use nomology, the science of the laws of the mind, which provides frameworks based on four embedded layers that explain how people come into conflict. The first is about our commitments, the second our convictions, the third about how we would like to get other people to adjust, and the fourth about how we ourselves are prepared to adjust. The third and fourth layers shape numerous inter-connected dilemmas. The person involved in a conflict resolution process should try to draw the conflicted person out of ‘anger’ to ‘avoid more violence’, from ‘fear’ to ‘show respect’, from ‘atrocities’ to ‘encourage civil society’, from ‘revenge’ to ‘consult/train/counsel’, from ‘bitterness’ to ‘truth and reconciliation’. We illustrate with a discussion between two academics about the treatment of Palestinian students by Israeli Defence Forces.

Keywords—decisions; nomology; structures; conflict; systems

I. A FRAMEWORK FOR UNDERSTANDING CONFLICT

The theory introduced here below draws on nomology, the science of the laws of the mind [1-4]. The Greek word ‘nomos’ means ‘law’. The ‘-onomy’ suffix has come to mean any field subject to law, such as astronomy, economics, ergonomics, etc. It is associated with the idea there are objective rules and systems that govern human activities. The ‘-logy’ suffix has come to mean any study of subjective rules and systems that govern human behaviour, such as sociology, ecology, psychology, anthropology, etc. Nomology proposes that all qualitative decision structures that are used in practice have the same foundation, based on a series of dichotomies, which can be expressed as questions. The first two questions are: ‘what is the nature of the problem?’: is it more about ‘planning’ or ‘putting’; and ‘where is it?’: is it more about ‘place’ or ‘people’. These create four foundational decision activities: ‘proposition’, ‘perception’, ‘pull’ and ‘push’ (Figure 1, Table 1).

The next two questions are: ‘who owns the problem?’: is it more ‘subjective’ or ‘objective’, and ‘which way should be used?’: should the focus be more on one’s ‘self’ and one’s ‘position’, or should it be more based on ‘personal’ interactions with ‘others’? If the decision is ‘owned’ by a company, organisation or association, the ‘which way’ question is answered by two alternative kinds of objective ‘adjusting’ process (Figures 1, 2). In one people use their ‘position’ to ‘pounce’ on a decision, to put a ‘price’ on the activities, to improve ‘productivity’, or company ‘practice’. The other involves ‘personally’ interacting with others, such as following a ‘procedure’, developing a ‘policy’, ‘promoting’ something or relying on the ‘pliability’ of the group to ‘push’ some initiative forward.

If the decision is ‘owned’ by an individual who is free to make a ‘subjective’ decision, as distinct from by an outside company, organisation or association, then the ‘pull’ aspect in Figure 1 and Table 1 does not apply: and a triad emerges: made up of a ‘proposition’, ‘perception’ and ‘push’. In this case the ‘which way’ question is answered with a choice between ‘committing self’ or ‘convincing others’. The process of developing anything: one’s relationships, life, or a project, is mapped as three stages of extroverted convincing focused on different approaches to others: a technical self-orientated proposition, a contextual others-related perception, and finally a situational world-orientated push that apply within each of three phases of introverted committing oneself: a needs-based analysis proposition, followed by a preferences-based design perception, and finally a values-based push to implement. These four decision processes: ‘committing self’, ‘convincing others’, ‘adjusting others’ and ‘adjusting self’, based on the ‘who’ and ‘which way’ dichotomies (Figure 2), turn out to be foundational ‘drivers’ of nomological behaviour.

<table>
<thead>
<tr>
<th>Table 1. Developing System</th>
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<tbody>
<tr>
<td>Introverted Committing Self</td>
</tr>
<tr>
<td>Proposition:</td>
</tr>
<tr>
<td>Abdacing Away from Needs /</td>
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<tr>
<td>Analysis</td>
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<tr>
<td>Deducing Down to Preferences</td>
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<tr>
<td>/ Design</td>
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<tr>
<td>Push:</td>
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<tr>
<td>Adding Forward to Values /</td>
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<tr>
<td>Implementation</td>
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<td>Pull:</td>
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</tbody>
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Table 2. Confrontation Dilemmas

<table>
<thead>
<tr>
<th>Others' View</th>
<th>Confrontation</th>
<th>Inducement</th>
<th>Others' View</th>
</tr>
</thead>
<tbody>
<tr>
<td>pull - proposition</td>
<td>Committing Self</td>
<td>promotion - pounce</td>
<td></td>
</tr>
<tr>
<td>compatible - confirm</td>
<td>Convincing Others</td>
<td>effort - engagement</td>
<td></td>
</tr>
<tr>
<td>confrontation - persuasion</td>
<td>Adjusting Others</td>
<td>inducement - truth &amp; reconciliation</td>
<td>bitterness - rejection</td>
</tr>
<tr>
<td>blame - righteousness</td>
<td>soul - guilt</td>
<td>Adjusting Self</td>
<td>heart - justification</td>
</tr>
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</table>
Examples of systems that have the structure in Figure 2 are Wilbur’s Integral Quadrant System [5] and Ackoff’s subjective and objective internalizers and externalizers [6]. Nomological structures provide frameworks that can act as lenses through which to view the different phases and stages of a project or decision process. Together these are used as maps, simplified two-dimensional representations that can help to visualise the decision alternatives during the project, and the consequences of not resolving imbalances.

Nomological theory shows that development processes use a four-layer methodology of adjusting self within adjusting others, within convincing others, within committing self (Figures 1 to 3, Table 1). The ‘committing self’ process is the highest and grounded in the needs’ analysis of the decision-makers. The next level tries to ‘convince others’ through three ‘views’. The first connects with oneself as an individual, and is supported by science and technical approaches. The second connects with others, draws on the humanities and relates to the context of the problem. The third relates to the ‘world’ of concern to the person, draws on practice and deals with situations.

Figure 2 guides how one should read the directions of the rows in Table 1. The first two stages of the analysis phase in Table 1 correspond to initially committing oneself to the project, and then convincing others about it. The third stage acts as a synthesis of these in the ‘world’ of the project. In Figure 2 this is represented in an outer ‘ring’. The move from analysis of needs to design of preferences can be seen as a move from step 3 to 4 in Table 1, and from ‘developing world’ to ‘adjusting world’ in Figure 2. This reflects changing from a purely subjective evaluation of what one wants, to deducing what one could objectively hope to achieve in the ‘world’, the right hand column in Table 1. The direction of the stages also changes from convincing self, then others, then the ‘world’, to ‘evincing’ what will work on the ‘world’, then what is acceptable to ‘others’ and then what does it mean for oneself. This uses the lower half of Figure 2, and completes a clockwise movement with an emphasis on objective decision-making behaviour by those responsible for ‘driving’ the process. Then the meta-process in Figure 2 reverses into an anti-clockwise direction, the ‘drivers’ are used to ‘draw’ one to implement the relationships in line with one’s values, using stages 7 to 9 in Table 1, first becoming convinced about constructing the relationship, then in its delivery to others, and finally maintaining it into the future. The move from design of preferences to implementation in accordance with one’s values can be seen as a move from step 6 to 7 in Table 1, and from ‘adjusting self’ to ‘adapting self’ in Figure 2. The change in direction in Figure 2 is reflected in Figure 1 also as a change from adjusting to adapting, using an anti-clockwise direction. We now consider the implications of these ideas for conflict decision processes. We first show that the process whereby one side goes into conflict with another follows an adjusting direction in Figure 1. We then explore the idea that conflict resolution is an adapting process. If this were true, it would suggest that conflict is driven by one’s preferences whereas conflict resolution is about being drawn by values.

The ideas below build on synthesising nomology [7] with conflict theory [8-10]. It has been applied to international conflict in particular [11], and can be interpreted using cultural constructs that are well known in China such as harmony, guanxi (personal relationships) and mienzte (face or image) [12]. In situations of potential conflict both sides focus on adjusting in relationship to one another to maximise their advantage. The interaction between them is described in the adjusting others and adjusting self constructs in each section in Figure 1. Its structure is based on an ‘adjusting’ system, which has two layers, ‘adjusting self’ embedded within ‘adjusting others’, each with four stages (Figures 2 and 3).

‘Adjusting others’ governs how individuals, groups or governments should behave with others through activities which need to be in balance and are highly inter-connected like cogs in an engine (Table 1, Figure 1). These processes are circular and can start anywhere in the cycle. Normally a conflict process begins with one side proposing something that involves adjusting the other side. The initial presumption is that this can be done in collaboration. If that is a problem, they move on to cooperation, and then into a confrontation and finally into conflict. Within each of these phases ‘adjusting self’ governs one’s own behaviour, what do you do depending on what the others do. Its four stages correspond to ‘pure’ and ‘pragmatic’ versions of relying more on one’s ‘position’ and using more ‘personal’ approaches [2, 4]. The ‘pragmatic’ versions deal with what to do in response to a reaction by the other party. We will illustrate these later, and in relation to a case about a confrontation (Figure 1, Table 2). The first show the ‘pure’ conflict instigation activities (the third from the outer ring of Figure 1). Starting with collaboration the first move is to use one’s ‘position’ and act unilaterally. After that it moves from unilateralism by getting more ‘personally’ involved and trying negotiation. The process continues, alternating between ‘positional’ and ‘personal’ approaches, next relying on the credibility of their position, then personally trusting the other side, next offering inducements, then moving into deterrence, after that to positioning themselves in case of conflict, and finally into threatening the other.

Throughout the process the conflict instigator must face multiple dilemmas. For instance, “the confrontation dilemma is that ‘persuasion’ may fail, and make it difficult to avoid conflict.”[7]. One response is to become more personally engaged and offer an inducement (third row of Table 2). This requires ‘pragmatism’, and should be done with caution: too little may seem an insult, too much a bribe. The idea should be to try and build, maybe rebuild, an atmosphere of ‘truth and reconciliation’, by demonstrating good faith. A problem that is characteristic of conflict decision-making processes is that the person offering the inducement does not know how the other’s view, also based on a dilemma, how to find a balance between their natural ‘pure’ feeling of ‘bitterness’ and the ‘pragmatic’ action of ‘rejecting’ the other side’s offer of an inducement. This is shown in the outer ring of Figure 1 and in Table 2. The person driving the process must then combine both sides’ points of view into a set of interaction dilemmas.
"The other aspect of confrontation is ‘inducement’, where the larger party tries personally to use rewards to promote its case. Here the dilemma is that the inducements are open to ‘rejection’. Confrontation may have to be made more direct.”[7]. There are eight such dilemmas where the person considering going into conflict balances their own action by the other’s likely reaction: unilateralism versus backlash, negotiation versus recognition, credibility versus awareness, trust versus renege, inducement versus rejection, deterrence versus incitement, positioning versus vulnerability, and threat versus weakness. An example of the latter is the North Korean regime’s response to U.S. and South Korean joint military exercises. Their threat to carry out a nuclear attack on the United States was so as not to appear weak amongst their own citizens [13].

II. CONFLICT RESOLUTION PROCESSES

We now consider the opposite situation, the dilemmas involved in a conflict resolution process. We showed above that conflict driven by one’s preferences follows an adjusting process. We now show that conflict resolution is about being drawn by values and follows an adapting process. We first show that this is consistent with the literature and then use it to explain what happened in a case. We apply nomology, and prioritise structures and processes rather than names, and use the terms for the constructs that have emerged from actual practice. The analogy is with bones, flesh and skin. The structures in Figure 1 and Table 1 have many applications [2, 4]. The bones are the decision structures, the skin the constructs or words used. The processes described here could apply to any conflict or difference in a research project or a business decision. ‘Fleshing out’ the meaning of the words in Figure 1 in the context of conflict resolution involves reflecting on published research, listening to discussions, and becoming aware of how the words connect to the structures. A jigsaw analogy helps when formulating nomological systems (Figure 1 and Table 1). A map analogy helps because maps show the relationships between activities in the figure, but say little about the nature of each activity. Nomological systems are not ‘normative’ or ‘prescriptive’, but ‘universalist’ in the sense that the mind forms these categories in a natural way, uses them to visualise the stages in decision processes. The analogy with ‘cogs in an engine’ helps explains the link to processes. When the ‘jigsaw’ is complete the ‘cogs in the engine’ should all be inter-connected. Hence, when a conflict resolution stalls, we should be able to identify the ‘cog’ that is blocking the process. The lowest level process is ‘pure’ versus ‘pragmatic’. From the start we expect that a conflict resolver will focus on the ‘pragmatic’ actions that would best help to achieve the most appropriate ‘pure’ response from the person or organisation that we want to move out of conflict.

Elworthy and Rifkind have made a very clear contribution to the literature on the cyclical processes in conflict resolution [14]. It has influenced studies on breaking cycles of violence [15], has been integrated with theories about the need for a Secure Base [16] and has been applied to the psychological processes at work in the Israeli–Palestinian conflict [17].

Figure 4 (Figure 1, p.44)[14] shows a ‘cycle of violence’ starting with ‘atrocity’ and moving into ‘shock’, then into ‘fear’, next to ‘grief’, then to ‘anger’, to ‘bitterness’, to ‘revenge’, to ‘retaliation’, and back to ‘atrocity’ again. Using the word ‘violence’ rather than ‘conflict’ emphasises that this reflects the experience of the person or group who is suffering from conflict against them caused by others. Figure 1 describes the Conflict Adjusting Dilemmas from the point of view of the instigator or facilitator of the process. The ‘others’ view of those suffering the violence is shown in the outer ring of Figure 1, one of which, ‘bitterness’ is in the right hand column of Table 2. Atrocity, shock, fear, etc. correspond to the ‘pure’ feeling caused by others being in conflict with them.

Figure 5 (Figure 3, p.74)[14] illustrates ‘transforming the cycle of violence’ starting with ‘avoid more violence’ and then moving to ‘show respect’, to ‘improve physical conditions’, to ‘include all parties’, to ‘encourage civil society’, to ‘set up CLDs’ (Centres of Listening and Documentation), to ‘trauma counselling’, to ‘train women’, to ‘train negotiators’, to ‘consult religious leaders’, to ‘bridge-building’, to ‘truth and reconciliation’. This corresponds to the facilitator’s point of view in the third ring from the outside in Figure 1. It is their ‘pragmatic’ response when trying to adapt others to move away from violence.

We now consider the nomological significance of Elworthy and Rifkind’s choices. We showed above that a conflict driven process has an inducement versus rejection dilemma (Figure 1 and the right hand columns of Table 2). We suggest the following new finding. As conflict resolution is the opposite of driven conflict, then using ‘truth and reconciliation’ as the pragmatic way of drawing people out of conflict should be part of addressing the mirror opposite dilemma, reducing the sufferer’s pure feeling of ‘bitterness’.

We next consider why ‘atrocity’ is the starting point for the cycle of violence, and why ‘anger’ is considered the best point to intervene to break the cycle. These are in opposite locations in Figure 1. People who have suffered from an atrocity will feel its effect in their ‘subconscious’ and will be sensitive to anything that feels like a ‘threat’, similar to those suffering from post traumatic stress disorder (PTSD). This parallel is recognised. Techniques associated with PTSD are used to develop skills and training for conflict resolution [18]. The conflict resolution facilitator is sensitive to the pain of those suffering from conflict, and tries not to ‘push’ others too much, or threaten the ‘place’ they control; nor do they over-use their ‘position’ as invited experts (Figure 1). They work in the opposite location, seeking to find the ‘policy’ that best helps people to talk freely without preconditions: openly ‘planning’ what to do, open to ‘people’, and open to discussing it ‘personally’. Starting an adapting process in the ‘policy’ sector is consistent with managing people from multi-cultural backgrounds [19], and with Kelman’s experience in the context of Israeli-Palestinian relationships [20].

Nomological validation comes from checking all aspects: the structure, the processes, the words. Kelman’s papers resonate in many aspects, in having dilemmas, responsiveness, reciprocity, engagement, credibility, pragmatism, interaction,
and not threatening positions or interests. He differs slightly in emphasising the facilitators’ role to build trust; Elworthy and Rifkind focus on pragmatic steps for resolving conflict. The main difference in fitting the ‘jigsaw’ is that ‘consult/train/counsel’ synthesises Elworthy and Rifkind’s steps: ‘set up CLDs’ (Centres of Listening and Documentation), ‘trauma counselling’, ‘train women’, ‘train negotiators’, and ‘consult religious leaders’ (Figure 5). This is justified because the others fit so well, and because of the match in the qualitative differences between the steps. The above five are very similar. The adjusting structure in Figure 1 is a balanced system. So why break this stage into five steps? Maybe it reflects that the real ‘game changer’ in conflict resolution is where people start to work consciously. This makes sense as it and ‘atrocity’ are both about resentment within one’s spirit in conflict situations.

We now combine the two cycles in Figures 4 and 5 from “Making Terrorism History” into eight adapting conflict resolution interaction dilemmas. In each the person trying to draw the other out of conflict has a ‘pragmatic’ aim to reduce the ‘pure’ feeling the other is suffering. They are: ‘avoid more violence’ to prevent feeding ‘anger’, ‘show respect’ to reduce the feeling of ‘fear’, ‘improve conditions’ to reduce feelings of ‘anger’, ‘include all parties’ to reduce the sensation of ‘shock’, ‘encourage civil society’ to not add to the feeling of ‘atrocity’, ‘consult/train/counsel’ to reduce the wish for ‘retaliation’, ‘bridge-building’ to reduce the wish for ‘revenge’, and ‘truth and reconciliation’ to reduce feelings of ‘bitterness’. The last two are in the right hand columns of the adjusting others row in Table 2. They mirror the ‘inducement’ versus ‘rejection’ dilemma above for the opposite case of going into conflict. In all eight steps the conflict resolution facilitator should, for example, have a ‘pure’ intention to ‘induce’ the other to not ‘reject’ a better relationship, but will ‘pragmatically’ accept it as sufficient to get them into ‘truth and reconciliation’ so as to address their feelings of ‘bitterness’, and so on. Also, at a higher level (in Figure 1) the facilitator should have a ‘pure’ aim to have the parties address their differences in a ‘confrontation’, but will ‘pragmatically’ accept any progress towards ‘persuasion’, and so on.

III. APPLICATION TO DIFFERENCES ABOUT A CONFLICT

The following is a reflection in December 2009 on a discussion between two academics, David and Jim (not their real names), both highly intelligent friends of mine that I respect intellectually, and who I know to be reasonable people. David is an Israeli academic living in Dublin. Jim is from the nationalist community in Northern Ireland, which may explain his sensitivity to abuses of minority populations and his consequent concern about how Israeli security forces make it difficult for Palestinian students and lecturers to travel to their universities on a daily basis [21, 22]. I facilitated a discussion between them that continued into the following written exchange. First Jim wrote “I greatly respect the total unassailable conviction you have in your beliefs, you have no doubts about where you stand, which is unlike me who is often somewhat confused and unsure of the history leading up to the present debacle. You might rightly like to position yourself on the left liberal wing of thought on the current on-the-ground strategy of the Israeli Government in Occupied Palestine, where we seem to have something to agree on, but from our brief debate, I observe that you are on the far right conservative wing on the more profound issue of the Israeli occupation of Palestine. Please acknowledge that this is an observation and like all such … it may be wrong. I observe too how in debate, you go for the jugular rather than the heart, so that you attack me as being uninformed and ignorant of the history which has lead up to this present situation there, and that don't know what I'm talking about, (your words) and of course in that particular context, you may again be right. I am I s'pose, a heart man and I live on the emotive surface, so that I am appalled at what I see on the ground there, and I have no doubt whatsoever that what I see on the occupied ground there is simply wrong, and no background of 1948 history, or data on suicide bombs, or rockets from the largest open prison in the world of Gaza, or anything else justifies it, and I will shout that to the high heavens and make no apology for it. The IDF (Israeli Defence Forces) treat the Palestinian students like dirt, they are in daily terror of them at the many check points across the West Bank, the animals in occupied Palestine get more consideration than they do, so you really should not be offended by my question if you too, like most Israelis as far as I observe, consider the Palestinians to be an inferior race to be treated like dirt. Of course there are terrible wrongs on both sides, sure, but if the word terrorism means what I think it means, I know from my experience of the students and staff in Bethlehem University, and of those also in Gaza … that the Israeli Government is by far the leading terrorists in that land”.

In his reply David wrote “I felt that you came ready to attack the Israeli stance and all its government’s actions. It felt to me that you came drenched in righteousness and moral superiority. Of course, these are my feelings and they may be based on more or less accurate perceptions…. (W)hile you prefer to believe that you are a ‘heart man’ and live on the emotive surface, I found your debate style predominantly demagogic. In the first five minutes you equated the situation in Gaza strip with that of the assailed Warsaw Ghetto. What did you think to achieve with such an ignorant assaulting comparison? You couldn’t even admit how ridiculous it was when I pointed out the basic facts to you and you insisted on manufacturing your own, such as that the starving half-alive Jews in the Ghetto actually shot civilians outside the Ghetto. In fact, you were comparing Israel to Nazi Germany and Israeli soldiers to SS soldiers. I felt insulted and hurt that a man like you would make such a comparison that until now I heard only from the worse anti-Semites and extreme Muslims. …. Then, in the last five minutes of our discussion, you chose
to hurl at me your insulting question of whether I see the Palestinians as an inferior race. … It is yet another example of a demagogic debating style in which you seek to depict the person you disagree with as morally inferior… Jim, in my worldview, heart without mind or passion without knowledge can lead people horribly astray....

I observed the debate. If I had facilitated it, I might have used a conflict resolution process. The discussion avoided the direct fear-resentment dilemma in the upper half of Figure 1. The Israelis fear Hamas whose intent is to destroy Israel. Palestinians resent the treatment they receive from Israel.

Jim wanted to confront an Israeli academic about why Palestinian students are prevented from going to lectures, but failed to persuade David. He then raised a soul-guilt dilemma, when he talked about “living on the emotive surface”, the guilt relating to not doing enough to help Palestinian students. The interaction in this case was more a reaction by David. His view of Jim’s soul-guilt dilemma was a blame-righteousness dilemma (left hand column of Table 2). David accused Jim of coming “drenched in righteousness and moral superiority”. He felt Jim’s soul feelings for the Palestinian students were imputing blame on him (David), and Jim’s feeling of guilt was imputing righteousness on himself (Jim). (The response to guilt is to be righteous. The only remedy if someone is going to make you feel guilty is to act rightly, do the right thing [1].)

Jim then ‘personalised’ the debate. But instead of making more effort to engage and convince him (Table 2) he tried to induce David to agree. David’s reply with phrases such as “predominantly demagogic” “ignorant assaulting comparison” and “ridiculous” shows that Jim had failed to engage David in truth and reconciliation. To David Jim’s inducement attempts would have sounded like bitterness, and indicate that Jim was likely to reject David’s explanations. When Jim related his feelings as a “heart man”, David challenged Jim’s justification because he had “equated the situation in Gaza strip with that of the assailed Warsaw Ghetto”.

David agreed to cooperate in a discussion, but very soon concluded that there wouldn’t be agreement. Because Jim “insisted on manufacturing” his own facts David felt he could not trust the dialogue. Consequently he did not avoid more violence in the discussion. Jim may have interpreted David’s lack of trust in his (Jim’s) case as (David’s) anger, and an indication that David wanted to renege on the discussion.

IV. Conclusion

We have shown that normal conflict means getting others to adjust to what you would like, whereas conflict resolution is about adapting. We have presented it using an Adjusting system, as a set of conflict resolution interaction dilemmas. We have shown in a generic system, for the first time, the way the structure illustrates both self and others’ points of view in ‘interaction’ situations explains the strength of Elworthy and Rifkind’s practice-based conflict resolution model.

In a second test we successfully used the model to interpret disagreements about a contentious issue. Jim and David’s confrontation-cooperation dialogue failed because neither was willing to give way to the other. When it became a soul-mind conflict neither was prepared to acknowledge the other’s point of view. As David said, “heart without mind or passion without knowledge can lead people horribly astray”. Both David and Jim have seen these reflections; neither challenges their conclusions nor the representation of their views.

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